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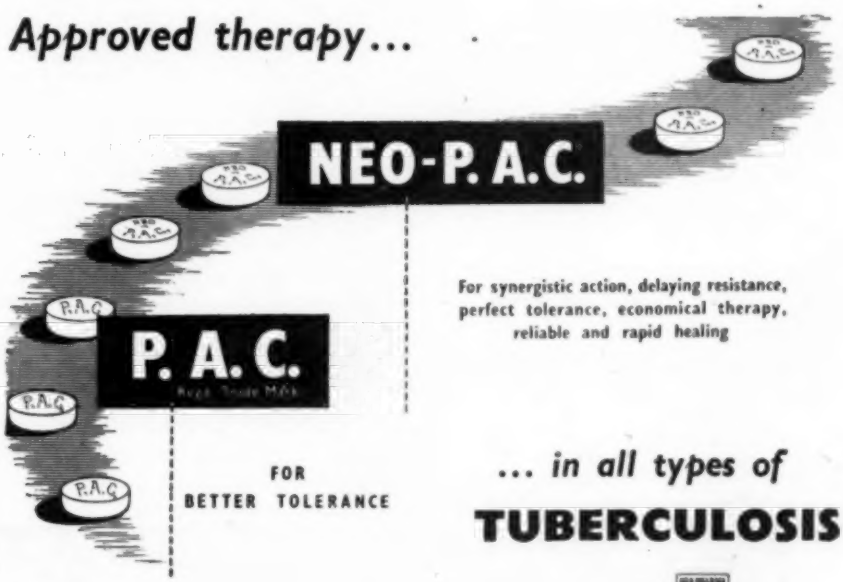

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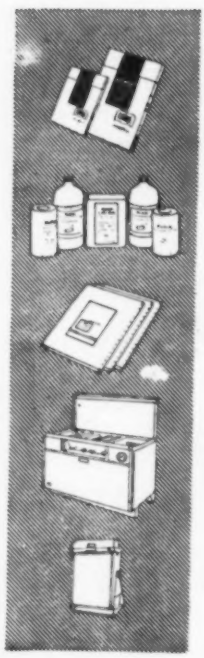

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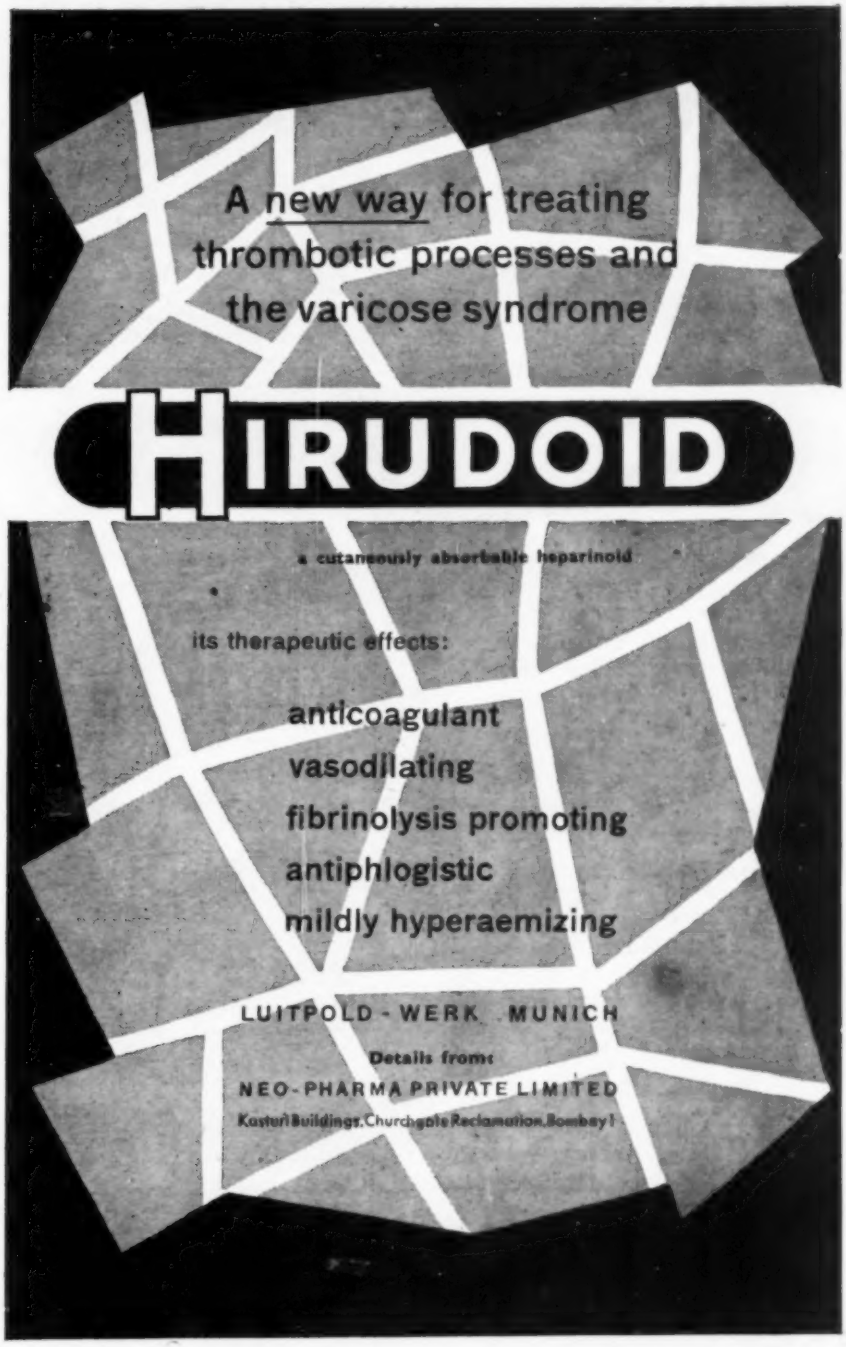
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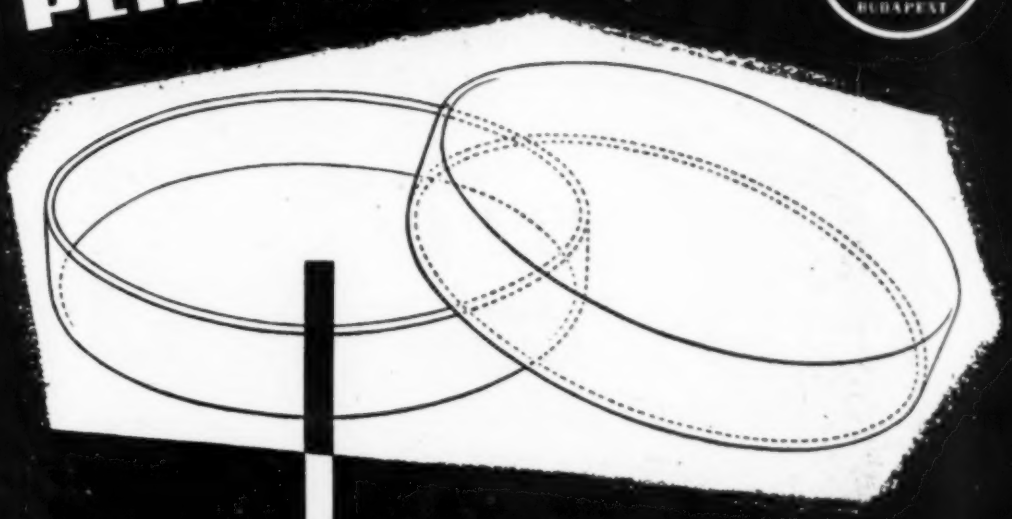

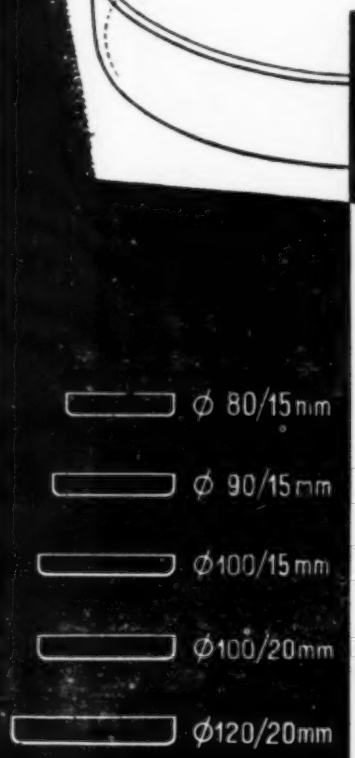

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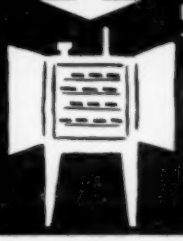

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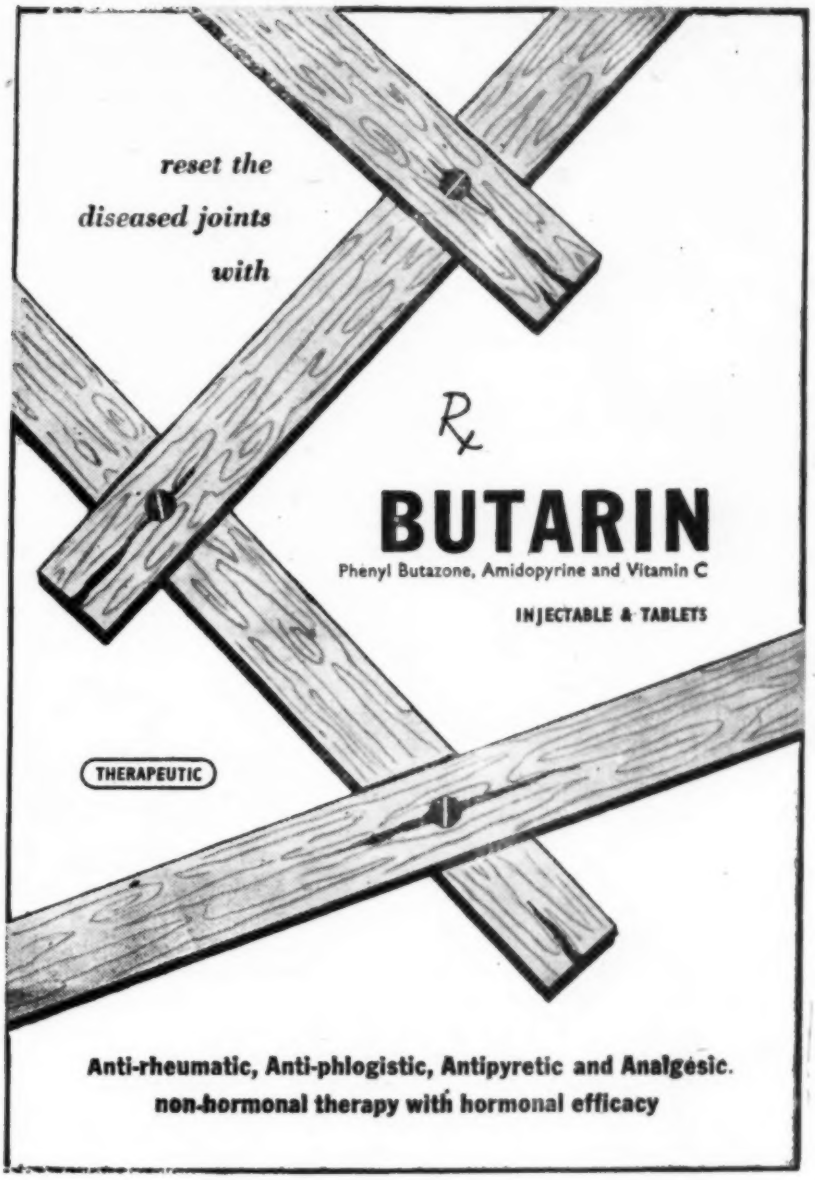
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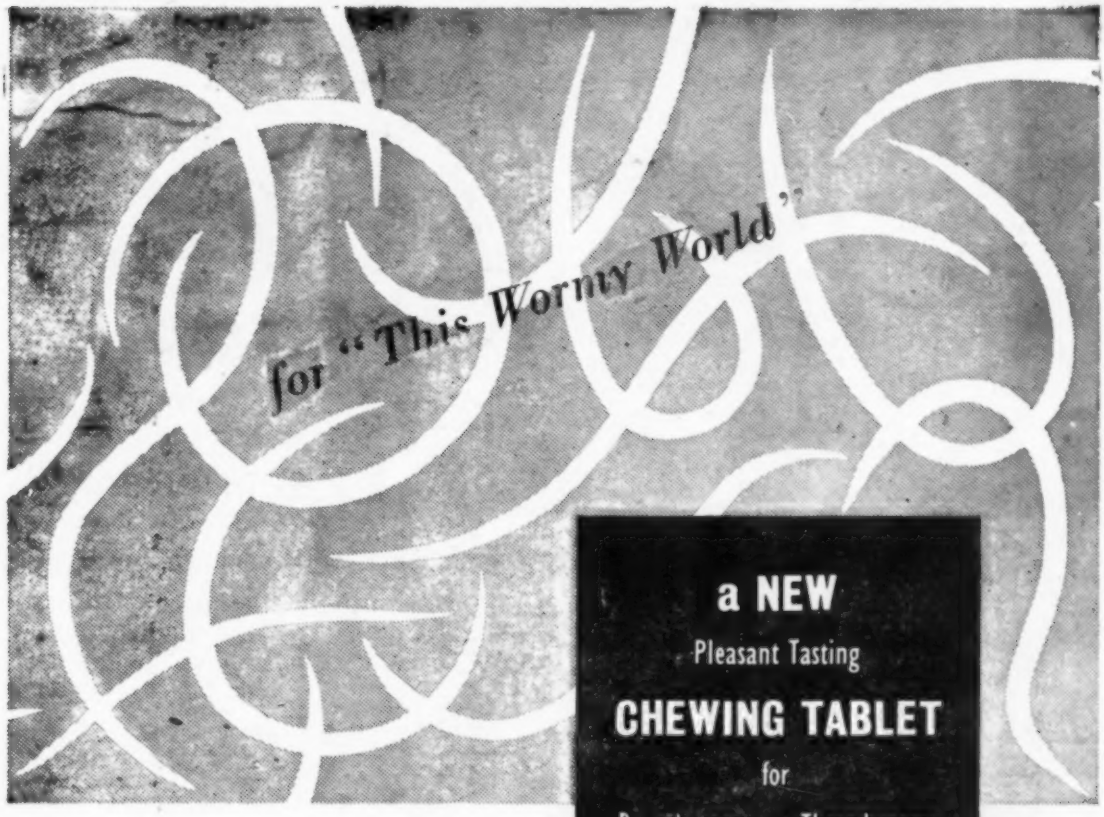

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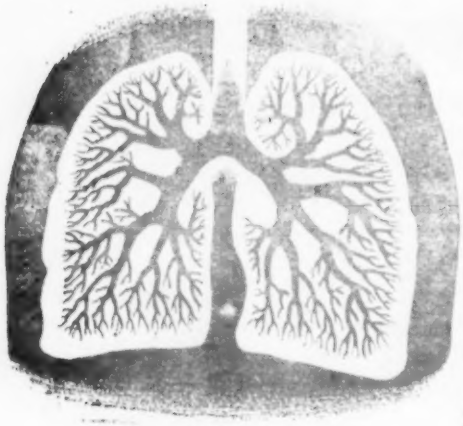

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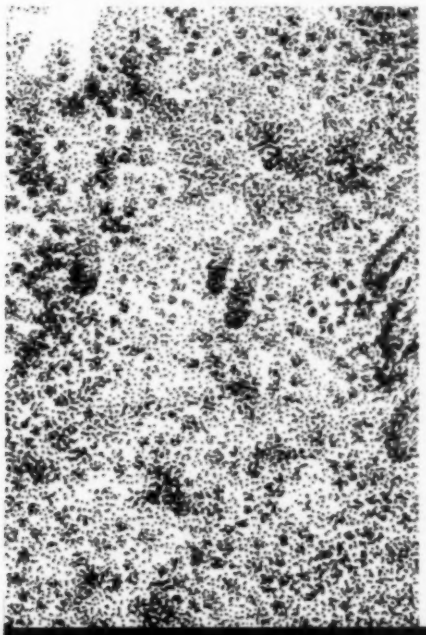

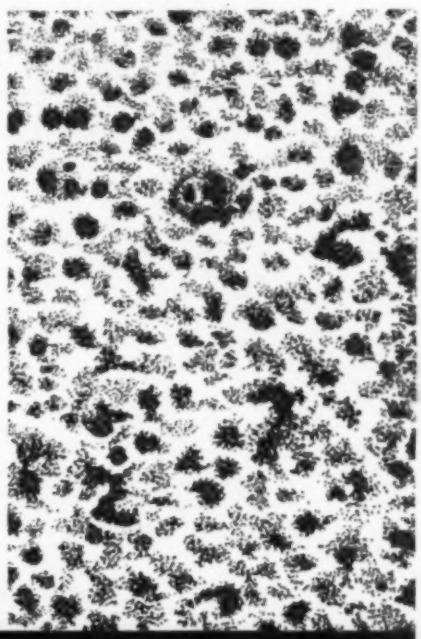

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ORIGINAL ARTICLES

ADRENOCORTICAL FUNCTION IN NASAL ALLERGY

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Nasal allergy poses a problem for the ear, nose and throat specialists in giving relief to the patients where no abnormalities are detected on routine clinical examinations particularly where the eosinophil count remains at such a level as to justify the treatment with antihistaminics, arsenicals or diethylcarbamazine. In such conditions the treatment is directed to be palliative rather than curative. With the latest knowledge of the hormone therapy it has been found that adrenocorticotrophic hormone, cortisone (Harrower, 1935 ; Hipple, 1939 ; Ludy and Applestein, 1939 ; Eiselsberg, 1940 ; Harding, 1941 ; Hofmann, 1942) prednisone or prednisolone give relief but the drugs must be continued. The continuance of such hormones may produce some ill-effects and at the same time the use of these drugs is not within the reach of the common man. As the hormone gives relief (but not a permanent cure) it is natural that it would be preferred by the subject suffering from nasal allergy when other agents fail to give any relief from the symptom complexes.

How the hormones of the adrenal cortex give relief is still a matter of speculation but it is reasonable to note whether patients with nasal allergy show alteration in the function of the adrenal cortex so as to evaluate the correlation between the use of cortical hormones and the allergic symptoms. So in order to assess this, adrenocortical functions have been studied by counting various types of leucocytes after injection of epinephrine hydrochloride because eosinopenic response test 4 hours after subcutaneous epinephrine injection is an established procedure to study the function of the adrenal cortex.

METHODS AND MATERIALS

Fourteen cases of nasal allergy diagnosed clinically and by laboratory examinations by the presence of eosinophil cells in nasal secretion were taken up. At the time of the test or period preceding it, patients did not receive any ACTH or adrenocortical hormones. Stool was examined. The cases with helminthic infestation were not included in the series under review.

1 c.c. of blood was collected just before and 4 hours after injection of 0·3 mg. of epinephrine hydrochloride subcutaneously. Total counts for W.B.C., and differential counts were undertaken. At the same time total absolute eosinophils were determined by phloxine-methylene blue method (Randolph, 1944 ; Chakrabarti and Banerjee, 1956.)

RESULTS

Results are given in Tables 1 and 2.

TABLE 1—SHOWING VARIATIONS IN ABSOLUTE COUNTS BEFORE AND AFTER EPINEPHRINE INJECTION

	Total count	Neutrophil	Lymphocyte	Eosinophil	Monocyte	Basophil
Before injection (14)	7360	3980	2364	591	107	18
After injection (14)	7937	5531	1980	325	89	12

TABLE 2—SHOWING BLOOD COUNT VARIATIONS (IN PERCENTAGE) AFTER SUBCUTANEOUS INJECTION OF 0·3 MG. EPINEPHRINE HYDROCHLORIDE IN PATIENTS SUFFERING FROM NASAL ALLERGY

(– indicates % decrease and + indicates % increase)

Serial No. of patients	Per cent of			
	W.B.C. (Total)	Neutrophil	Lymphocyte	Eosinophil
1	–14	+ 8·5	–42·5	–41
2	– 4	+ 19·4	–36·1	–40
3	– 8·4	+ 14	–37·7	–71·4
4	+13	+ 98	– 5	–35
5	+15	+ 49·9	–18·9	–30·5
6	+10	+ 41·1	–13·5	–27
7	+30	+103	–15·1	–61
8	+13	+ 45·2	–30·3	–75
9	+10	+ 36·8	–26·7	–65
10	– 3	+ 16·9	–27	–46
11	+ 7	+ 57	–40·6	–38
12	+ 7	+ 37·9	–24·1	–34
13	+ 4	+ 34	–25·1	–26
14	+ 2	+ 21·8	–19	–63

DISCUSSION

Fourteen cases of nasal allergy were investigated for the assessment of one of the indices of adrenocortical functions by the simple and practicable test of eosinopenic response 4 hours after epinephrine injection. In normal health epinephrine injection causes neutrophilia, lymphopenia and eosinopenia; the reduction of eosinophil count by more than 50 per cent after epinephrine injection indicates normal adrenocortical function. In our series out of 14 cases, 5 showed reduction of eosinophil count by more than 50 per cent. The remaining 9 cases showed depressed adrenocortical function.

The increased total leucocyte count that is observed after adrenaline injection in normal health is ascribed to active neutrophilia but not to relative increase of neutrophils with concomitant reduction of eosinophils and lymphocytes. In the present investigation we observed in four cases total leucocyte count to be decreased after epinephrine injection with slight neutrophilia, eosinopenia and lymphopenia.

It may be presumed that epinephrine through the hypothalamic pituitary axis evokes the secretion of adrenocorticotrophic hormone causing the liberation of glucocorticoids from the adrenal cortex which are responsible for neutrophilia, lymphopenia, eosinopenia and leucocytosis, thus affording protection to the body's activities against stress and strain. During stress and strain as in allergic condition (Saphir and Binswanger, 1930; Scalabrino, 1932; Simonin, 1948; Criep and Mayer, 1949) in the phase of repeated alarm reactions it is natural that there is exhaustion of epinephrine storage with consequent derangement of adrenocortical function. So the observed findings of depressed epinephrine effect are due to the exhaustion of adrenal cortex in continual untreated cases of nasal allergy investigated.

Therefore the symptoms of allergic manifestation of such cases are ameliorated so long as glucocorticoids content of the blood is maintained by the administration of the hormone. Unless the source of allergy is eradicated permanent cure cannot be effected by the continuance of treatment with glucocorticoids.

The present investigation has failed to solve the puzzle of the cause of eosinopenia with active neutrophilia after epinephrine injection. Possibly adrenocortical hormone is responsible for stimulating the production of neutrophils from myeloblast inhibiting the formation of eosinophils. Whenever the glucocorticoids are less in the continual allergic conditions, the eosinophil count of the blood shows considerable increase and it is therefore no wonder that the expression of the eosinophils to be an index of the allergic conditions (Urbach and Gottlieb, 1946) is true. In the early stage of allergy, eosinophil count cannot give an idea about the degree of allergic manifestations to decide on the use of arsenicals or hetrazan and thus complicates the problem of treatment. The only treatment that is possible to give relief in the absence of raised eosinophil count is by antihistaminics with or without glucocorticoids.

The latter treatment by depressing the eosinophil count will further complicate the issue as the degree of allergy cannot be noted. Treatment by antihistaminics or glucocorticoids is a vexed problem even when there is normal adrenocortical response after epinephrine injection in allergic rhinitis.

SUMMARY

Fourteen cases of nasal allergy were investigated.

Nine cases showed depressed adrenocortical functions.

A few cases revealed leucopenia after epinephrine injection which is contrarywise under normal health conditions; explanation of these findings has been given.

The rationale of treatment with various agents specially adrenocortical hormones has been given.

ACKNOWLEDGMENTS

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DERMATOMYCOSES IN UTTAR PRADESH

An Analysis of 620 Cases

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INTRODUCTION

Dermatomycoses as recognised by Conant *et al* (1954) are superficial skin diseases caused by the species of the genera *Trichophyton, Microsporum* and *Epidermophyton* which are highly specialised parasites inter-related by their common morphological features and physiological adaptations to a parasitic mode of existence on cutinised and keratinised tissue of man and animal.

Strictly speaking, dermatomycoses should include conditions like erythrasma, candidiasis and those produced by *T. versicolor* and *T. nigra*.

As the disease causes nothing more than annoyance and physical discomfort only a small percentage of people suffering from the disease come for treatment to the hospital. Since it is not possible to initiate a provincewide survey, it is felt that the results of the intensive studies of the hospital cases give a fairly clear picture of the distribution of dermatomycoses in Uttar Pradesh.

The occurrence of the mycotic diseases in this province has received recent attention. Srivastava and Gupta (1958) reported the presence of *T. rubrum, T. mentagrophyte, M. audouini* and *C. albicans* as the causative pathogens for mycotic skin diseases in Uttar Pradesh among which *M. audouini* was isolated from only one patient. Das Gupta and Shome (in the press) from a similar study reported in addition to the previous ones except *M. audouini* the occurrence of *T. tonsurans, T. verrucosum, E. floccosum, Microsporon sp.* and *Melassezia furfur* as those responsible for superficial skin diseases in the province. From among the various mycotic diseases like pityriasis versicolor, erythrasma, candidiasis, mycotic melanoderma and dermatomycoses studied by them, dermatomycosis as defined above was found to be the most dominant disease in both the findings. In the light of these facts a subsequent clinical study of 145 cases of dermatomycoses was made by the present authors to get further insight into the prevalence of, and the problem of prophylactic measures against, the dermatomycoses. The results of the previous authors were made available to the present workers from which the dermatomycotic cases were re-analysed along with the present findings. Thus the current paper deals with clinical analysis of 620 dermatomycotic cases and the percentage distribution of dermatophytes in the province in comparison with their distribution in India and other countries.

MATERIAL AND METHOD

The material was collected from among the patients coming for treatment to the Skin Department (outdoor) of Mahatma Gandhi and Associated Hospitals, Lucknow. The procedure adopted was as follows:

Detailed case histories of the patients along with other relevant data like age, sex, religion, etc., were recorded. Photographs of the diseased lesions were taken whenever considered necessary.

During the course of clinical diagnosis the patients were divided into different groups

depending on the manifestation of disease on the various parts of the body. The classification of Conant *et al* (1954) was followed.

Result

The distribution in relation to the various parts of the body, in the 145 cases of dermatomycoses studied, is shown in Table 1.

Table 1—Showing Distribution of Dermatomycoses

Regional distribution	No. of cases
T. pedis	25
T. unguium	2
T. cruris	54
T. corporis	50
T. barbae	3
T. capitis	11
Total	145

The present findings taken along with the data of dermatomycoses of Das Gupta and Shome (*loc. cit.*) and Srivastava and Gupta (*loc. cit.*) in a consolidated form give a fair enough picture of the percentage distribution of different dermatomycotic diseases in Uttar Pradesh (Table 2).

Table 2—Showing Relative Incidence of Different Dermatomycotic Diseases

Disease	No. of cases	Percentage
T. pedis	97	15·64
T. unguium	12	1·93
T. cruris	221	35·64
T. corporis	246	39·67
T. barbae	24	3·94
T. capitis	20	3·22
Total	620	

Although all parts of the body are liable to be infected it was found that dermatomycoses are dominant in certain areas, i.e., general body, groins and genitals which are followed by areas showing lesser involvement such as hands and feet, face, scalp, nails, etc.

The data were further analysed to show the relation of dermatomycoses to age, and sex. The results are summarised in Table 3.

Among the 620 cases, 75·81 per cent were males and 24·19 per cent females, the ratio between males and females being 3·13 : 1. The relatively low percentage of females was somewhat affected by the adverse social custom and

Table 3—Showing Incidence of Dermatomycoses in Relation to Age and Sex (620 Cases)

Sex		Age		
Male	Female	Above 20 years	Between 12-20 years	Below 12 years
470 (75·81)	150 (24·19)	374 (60·32)	206 (33·23)	40 (6·45)

Figures in parentheses indicate percentage.

purdah among the females in the district. An interesting point observed during the study was the complete dominance of *Tinea cruris* among males (96 per cent) in comparison to relatively negligible cases among females (4 per cent).

When analysed in terms of different age groups dermatomycoses were found to be dominant among adults (60·32 per cent), relatively less prevalent among boys and girls between 12-20 years (33·23 per cent) and rare among children (6·45 per cent).

The further analysis of the patients belonging to different clinical varieties in the said age groups brought out certain very interesting points as shown in the results summarised in Table 4.

Table 4—Showing Percentage Distribution of Cases of Different Clinical Varieties in Different Age Groups

Diseases	Age groups		
	Above 20 years (per cent)	Between 12-20 years (per cent)	Below 12 years (per cent)
T. cruris ...	40	58	2
T. capitis ...	10	15	75
T. corporis ...	59·4	32·5	8·1
T. pedis ...	97·7	1·3	1
T. unguium ...	75	25	—
T. barbae ...	83·4	16·6	—

Although it has been shown that dermatomycoses are dominant in adults and rare among children (Table 3) it is clear from further analysis that some diseases are more prevalent in different age groups also, as we find *T. capitis* to be predominant among children being uncommon in other groups whereas *T. cruris* is a little more prevalent among patients between 12-20 years than in adults. The rest of the clinical varieties shows by far the same pattern as shown by the dermatomycoses in general.

Among the 20 cases of *T. capitis* studied during the survey, majority (95 per cent.) were found among Indian patients. The case history of all these patients shows that they did not have any contact with foreigners or people from hilly regions for contracting the disease. These results are in contrast with the previous finding from India.

For isolating the fungal pathogens responsible for dermatomycoses, scrapings were taken from the lesions under aseptic conditions and inoculated *in situ* on Sabouraud's dextrose agar incorporated with streptopenicillin. The successfully isolated fungi were then studied in different nutritional media for their physiological properties and further compared with specimen cultures obtained from C.B.S. Baarn Holland for their identification. The procedure followed for the isolation and identification of the pathogens was the same as described by Das Gupta and Shome (*loc. cit.*).

Further analysis of the mycological data available was done to get an idea of the relative abundance of different dermatophytes in Uttar Pradesh, which on comparison with those of the occurrence of dermatophytes in India and other countries (Ghosh *et al*, 1948a and 1948b) showed that every country has a species of dermatophyte predominant over the other ones and it varies from country to country.

TABLE 5—SHOWING PERCENTAGE DISTRIBUTION OF DERMATOPHYTES IN INDIA AND CERTAIN OTHER COUNTRIES

Place	*T. purpureum* or *T. rubrum*	*E. floccosum*	*T. gypseum* or *T. mentagrophyte*	*T. violaceum*	Other species
Uttar Pradesh (Lucknow)	56·73	1·92	31·73	—	9·6
India	63·00	33·23	2·36	1·41	—
China	81·58	7·90	—	10·52	—
U. K. (England)	29·00	44·5	26·5	—	—
U. S. A. (America)	18·33	3·25	75·42	—	3·0

Table 5 clearly goes to prove that *T. rubrum* is the most prevalent species in both the findings of India and it can surely be said to be the predominant pathogen responsible for dermatomycoses in this country. The strikingly low percentage of *Epidermophyton floccosum* (1·92 per cent.) and the comparatively high percentage of *T. mentagrophyte* (31·73 per cent.) in Uttar Pradesh are in contrast with the findings of Ghosh *et al* (*loc. cit.*) which may be attributed to the difference in climatic and living conditions of Calcutta and Lucknow.

DERMATOPHYTIDS OR ALLERGIC DERMATITIS :

During the course of the present survey an interesting feature encountered by the authors was the 'id-irruptions' in case of fourteen patients. All these cases failed to show the presence of fungal elements both on direct examination and culture though Panja (1956) was able to find fungus on repeated examinations. The patients, however, either stated a positive history of previous mycotic infection or showed infection at some site on the body other than the place of 'id-irruptions'. The irruptions were vesicular in nature either isolated or grouped together in bunches which appeared like 'sago-grains' under the skin. The vesicles were filled with clear sterile fluid. The commonest sites for the irruptions were the distal ends of both extremities with a particular affinity to the ventral aspects of palms and soles, in severe cases extension took to the distal aspects also. Sometimes the feet, legs or body were also affected which resembled the clinical picture of pityriasis rosea or eczema showing irregular and macular lesions with scalings. Trichophytin test could not be done on account of non-availability of the reagent. In most of the cases recorded the general history of the disease ran as follows :

At the inception the seat of the infection gets itchy which on scratching gets tense, red and appears swollen. After intervals of varying degrees solid papules are formed which shortly get filled up with fluid and become vesicles; throughout this process itching continues which sometimes causes the removal of the top of the vesicles and oozing of clear, tenacious, slimy fluid. The vesicles when examined carefully with the aid of a hand lens appear spongy and multiloculated. Sometimes secondary infection causes pustulation of these vesicles which takes its normal course of healing by scabbing. Patients complain of severe burning sensation and warmth in these lesions and try to cool their hands and feet in cold water. Soothing lotions specially when constantly applied in the form of moist pads give great relief. Severe cases produce pronounced disability thereby hampering the normal routine of the patient's life.

Prophylaxis

With all the modern medicines at our command and the armamentarium of the so-called fungicidal and fungistatic remedies we are not in a position to say that we can cure the dermatomycoses radically. Periodic recurrences of the disease are seen during late summer and rainy season even among the most careful persons. The only plausible explanation for this can be that the spires lie dormant under the superficial layer of the epidermis which on attaining the favourable environmental condition (i.e., heat, humidity) germinate and multiply. Thus with the best of care and precaution, we can only claim to keep the patient 'relieved' and 'not cured'. After having studied the 'habitat', physiological and morphological characters of these fungi (dermatophytes) we can venture to enumerate the following prophylactic measures against them :-

1. Keep the infected parts dry as far as possible and practicable.
2. Do not allow the subject to perspire heavily as it causes depletion in the propionic acid content of the skin thereby leaving it less resistant to the disease.
3. Expose the infected parts daily to direct sunlight (sun bath) or use ultra-violet ray lamps which create better resistance in the skin and dispel infection because of the antifungal properties.
4. Wearing of others' under-garments, shoes, socks and gloves should be discouraged and avoided. The infected person should boil his own under-garments, socks, gloves, etc.
5. Proper hygienic precautions should be taken, i.e., (a) cleaning of the body and keeping it dry with powders containing propionic acid or salicylamide, (b) superfluous or unnecessary hair growth should be cut short or shaved, (c) proper segregation of the infected and healthy persons to avoid further spread of the disease, (d) proper sterilisation of tools and other accessories in public places like public baths, barbers' shops, etc.
6. The authors during their study tried numerous standard fungistatic and fungicidal agents for treatment among which the following were found giving preferably good results against dermatomycoses :

   (a) Powders containing propionic acid. (b) Mycostatin. (c) Triple dye. (d) Desogen. (e) Sodium hyposulphite.

Summary

The paper deals with the analysis of 620 cases of dermatomycoses in Uttar Pradesh, studied in the Mahatma Gandhi and Associated Hospitals, Lucknow. It comprises of clinical study of 620 cases and the percentage distribution of dermatophytes in the province as compared with their prevalence in India and other countries.

Dermatomycoses were dominant among adults (69·32 per cent), relatively less prevalent among boys and girls attaining the age of puberty (33·23 per cent) and rare among children (6·45 per cent). The diseases were more common among men than women, the ratio between the sexes being 3 : 1 respectively.

From among the 620 cases studied, 246 were *T. corporis*, 221 *T. cruris*, 97 *T. pedis*, 24 *T. barbae*, 20 *T. capitis* and 12 *T. unguium*.

Dermatophytes in the province were represented by two genera, i.e., Trichophyton and Epidermophyton, the former having the overwhelming majority of 98·08 per cent. *Trichophyton rubrum* was found to be the most prevalent species among the dermatophytes being represented by 56·73 per cent. The other pathogens, e.g., *T. mentagrophyte* and *E. floccosum*, were represented by 31·73 per cent and 1·92 per cent respectively.

Fourteen cases of 'id-irruption' were studied during the survey and have been discussed along with clinical symptoms.

Certain prophylactic measures against the dermatomycoses have been suggested by the authors.

Acknowledgment

The authors are grateful to Prof. S. N. Das-Gupta, Head of the Botany Department, Lucknow University, Lucknow, for his valuable criticism of the mycological analysis of the data and constant help during the preparation of the paper.

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AN EPIDEMIC OF UNDIAGNOSED FEVER AMONG SCHOOL CHILDREN IN SOUTH KERALA

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On 17-9-1958 a child in the primary school at Thatta in Thumpamon village about two miles from Pandalom was taken ill with fever and headache. In 48 hours most of the children in the school presumably fell ill, since only 20 out of the three hundred children attended school on the 19th September. The general history of the illness was as follows:

Sudden onset with high fever, severe headache, extreme listlessness, vomiting in several cases including one in which there was altered blood, an occasional cough in some, and constipation. Examination showed a temperature ranging from 100°F-103°F with a relatively slow pulse, tongue clean or slightly coated, no inflammation of the throat or nose, normal respiratory and circulatory systems, soft abdomen, no enlargement of the liver or spleen, no neck rigidity or stiffness, Kernig's sign negative and no other neurological symptoms.

On 20-9-1958 the first two of us visited Thumpamon and examined the children who had been admitted as inpatients in the emergency hospital. We examined twenty-eight children at random and performed a total and differential leucocyte count on six of them and collected acute phase blood from six of them. The history and findings are given in Table 1 and the results of leucocyte count in Table 2.

All had enlarged, discrete, tender glands in the sternomastoid and subclavicular areas. None had any running of the nose. No other signs either respiratory, abdominal or neurological were detected. In a week all the children got well and were back at school.

On 10-10-58 convalescent phase sera were collected from the six of the original cases and stored at −20°F.

A house to house survey at Thumpamon village was conducted from 22-9-58 to 1-10-58 by the local health inspector and the following data were obtained:

I. Total number of attacks was 152 of which 57 were in males and 95 in females.

II. The number of attacks among school children was 140 and that among others 12.

III. Number of cases hospitalised was 67, the number treated as O.P. 40 and others were 45.

IV. Number of houses affected 127 (out of total 659). Number of houses with 3 cases—5. Number of houses with 2 cases—15. Number of houses with 1 case—107.

V. Total population of infected houses was 781 out of which 365 were adults and 416 children; amongst adults, 171 were males and 194

TABLE 1—SHOWING ANALYSIS OF THE CASES IN RELATION TO CLINICAL FINDINGS

Clinical findings	Percentage of cases
Fever	64·3
Headache	92·9
Giddiness	42·9
Abdominal pain	75
Retching	14·3
Vomiting	35·7
Pain all over the body	17·9
Pain in the limbs	39·3
Pain in the chest	17·9
Weakness	25
Cough (occasional)	17·9
Rigors	14·3
Lung signs	3·6
Epistaxis	7·1
Dilated pupils	14·3
Conjunctival congestion	7·1
Lachrymation	7·1
Pain in the back of the eye	7·1
Inability to walk	14·3
Carpopedal spasm	7·1

TABLE 2—SHOWING TOTAL AND DIFFERENTIAL WHITE CELL COUNTS DONE IN 5 CASES

Name	Age (in years)	W.B.C. (in c.mm.)	Polymorphs	Lymphocytes	Monocytes	Eosinophils
			(in per cent)			
Kamalamma	10	12,700	78	16	6	0
Gopalan	10	8,200	83	8	6	3
Rajan	10	8,000	60	30	9	1
Karunakaran	10	10,500	73	19	5	3
Narayan	12	12,300	54	21	4	21

females while amongst 416 children, 204 were males and 212 females.

VI. Age distribution of the cases was as follows :

Age in years	No. of cases	Age in years	No. of cases
Below 5 ...	3	10 ...	27
5 ...	3	11 ...	21
6 ...	14	12 ...	18
7 ...	13	13 ...	12
8 ...	19	Above 13 ...	5
9 ...	17		

VII. Duration of illness (in days) and the number of cases were as under :

No. of days	No. of cases	No. of days	No. of cases
2 ...	1	7 ...	18
3 ...	6	8 ...	8
4 ...	32		
5 ...	36	Follow-up	
6 ...	47	incomplete ...	3

VIII. Date-wise incidence of the cases (from 17-9-58) :

Date	No. of cases	Date	No. of cases
17th	10	23rd	1
18th	61	24th	1
19th	42	25th	2
20th	22	20th, 28-9-58	
21st	8	to 10-10-58	
22nd	2	per day ...	1

The emergency hospital at Thumpamon was closed by the end of the month.

This outbreak at Thumpamon was followed by an outbreak at Pathanamthitta, N.E. of Thumpamon and about 4 miles distant by road. Twenty cases occurred in a day in one school.

All the cases were mild and no further cases occurred. Because of mildness they were not reported to us and hence we could not get at the cases. Yet this outbreak had an interesting sequel. One of the cases here was a girl aged 10, who was suddenly taken ill with high fever (T-103°F), giddiness, heaviness and pain in the legs and inability to walk. She was sent home. She recovered sufficiently the next day to walk three miles to her school. Her aunt, who is a matron in the boarding section at the S. D. A. Mission School near Sadanandapuram, two miles from Kottarakara, was staying with her. She left twentyfour hours after her niece's illness for her place of work at the school. This school is situated on a hill, away from the main trunk road and is a boarding cum day school. Within 24-48 hours of her return ten of her wards fell ill. She herself manifested no symptoms. All three of us visited the school on 2-10-1958 and since on examination we found that the outbreak was almost identical with the one at Thumpamon and none of the cases were severe, we advised them to keep the children isolated in the school and prescribed aspirin q.s. and rest in bed. The Medical Officer in charge of the dispensary at Kottarakara who was looking after them was entrusted with their medical care. Due to the insistence of the parents of the sick children who arrived there next day on knowledge of the outbreak, the school authorities had to agree to their transfer to hospitals. Five of the children were transferred to the District Board Headquarters Hospital, Quilon, and five others to the General Hospital, Trivandrum. The case histories of the latter five on admission are :

CASE NOTES

Case 1—Girlie, 13 years, started three days ago with giddiness, ? fainting fits, pain in the muscle and joints, backache and headache. Pain in the aboden. T. 98·4°F—99·0°F.

Case 2—Juna baby, 16 years, started suddenly three days ago, when she fell down unconscious in the kitchen. On regaining consciousness, she had severe headache. Later she developed pain in the back of the neck, in the spine and all the joints. Temperature 98·4°F—99·0°F.

Case 3—Margaret Johnson, 10 years, started two days ago with headache, pain in the back of the neck, spine, and joints, giddiness and pain in the abdomen. Temperature normal.

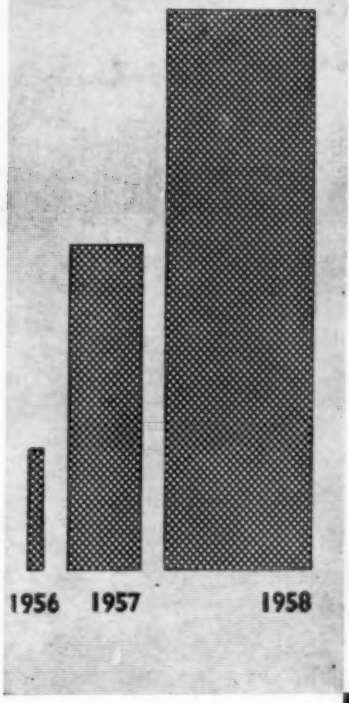
Case 4—Sosamma M.B., 16 years, started 5 days ago when she felt chill and cold; had a feeling of giddiness. She developed blurring of vision. Later she developed pain in the spine, joints and headache. Had ? fainting fits. Temperature was between 98·4°F—99·0°F.

Case 5—Dayalan, 12 years, started three days ago. While going to the latrine, suddenly felt giddy. He was put to bed and became unconscious. He had headache, backache, pain in the abdomen and pain all over the body. Temperature was between 98·4°F—99·6°F. Most serious of all the cases.

A specimen of blood was collected for serological investigation from each of the cases. They all got better in a week and were discharged. The cases admitted to Quilon hospital also had an uneventful recovery.

Facts and Figures

20,000 grew into 1,000,000



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The five cases whose histories are listed above on return to school found difficulty in reading. In five minutes they got pain in the eyes, lachrymation and blurring of vision. They also had pain in the abdomen on taking food. Dayalan was the most affected. On 28-10-1958, i.e., about two weeks after his discharge from hospital, he started behaving abnormally. He became quarrelsome, fisting his classmates and breaking glassware. He was therefore sent back to hospital for treatment.

Two of the cases discharged from Quilon hospital had a recrudescence of their disease on 29-10-58. Their histories are reported below.

Case Notes

Case 1—Lalitha John, 18 years, was in Quilon hospital from 4-10-58 to 19-10-58. She took rest for a week after discharge. She was not feeling up to the mark even then. On 29-10-58 while attending classes she felt heaviness of the head and was unable to sit in the class. Her eyes began to water. She was taken to the dormitory and became unconscious. When she regained consciousness, she complained of pain all over the body, headache, backache and abdominal pain. She had loose motions but no blood or mucus. On 31-10-58 examination revealed normal temperature with a pulse rate of 84 per minute. All systems—nil abnormal.

Case 2—Elizabeth Leela, 15 years, was in Quilon hospital from 5-10-58 to 19-10-58. She was having headache and pain in the lumbar region after her return from hospital. She developed earache on the night of 28-10-58 and on 29-10-58 while in the class it became intense. She had headache and backache. She felt uncomfortable and left the class. She felt chill and perspired. On 31-10-58 she was having pain all over her body, headache, backache, pain in the abdomen on taking food. Constipated since three days. Sleep disturbed. On examination N.A.D.

Convalescent phase sera have been collected from all the five cases admitted to the General Hospital, Trivandrum.

An outbreak similar to that in Thumpamon occurred in Kozhencherry, north of Thumpamon and 14 miles by road from it. Only 10 persons were affected. The attack was mild and self limited and hence no action was taken.

Discussion

Thumpamon, Pathanamthitta, Kottarakkara and Kozhencherry are upland areas consisting of undulating countryside. The terrain and soil are similar. None of them has a piped water supply or drainage system. Wells are sources of water and open or pan latrines are used. The rainfall averages 120-240 inches per annum. Houses are situated in their own patch of gardenland. The temperature does not significantly differ in these places. Pathanamthitta has a population of 5846, Kozhencherry 5426 and Thumpamon 3428 as per 1951 census. Bus services connect all these places.

The epidemic at Thumpamon had the following features:

(1) Confined to inmates of one school.
(2) Confined to the school children.
(3) Explosive in its spread, in 72 hours 280/300 affected.
(4) Adults unaffected clinically by the disease.
(5) Mild nature and uneventful recovery of all cases with no complications or sequelae of of any type.
(6) Complete absence of conjunctival congestion, running of the nose or catarrh of respiratory tract.

The main symptoms are temperature 100°F—103°F, aches and pains all over the body, headache, and abdominal pain with or without vomiting. The pattern suggests a virus infection. It has most of the characteristics of "Summer Grippe" or epidemic myalgia. The outbreak at the school near Kottarakkara may be linked to Thumpamon disease by postulating that the matron acted as a carrier of the virus from Pathanamthitta which had an outbreak similar to that at Thumpamon and which is close to it. The significant difference lies in the fact that some of the children of the S.D.A. school showed sequelae suggestive of retrobulbar neuritis, or central nervous system involvement though physical examination revealed nothing abnormal. Ophthalmoscopic examination of these cases did not show any abnormality.

Acknowledgment

We express our indebtedness to the staff of the Department of Health Services and of the Medical College who rendered us the necessary help in these investigations.

CHOLINE THEOPHYLLINATE IN OEDEMA

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Introduction

The xanthines—caffeine, theobromine and theophylline—have an appreciable diuretic action. Large doses of xanthines have haemodynamic actions which result in an increased cardiac output, renal blood flow and glomerular filtration rate. Prominent effect of the xanthines on cardiac output and renal blood flow are observed only following their

parenteral administration which has been quite useful in cases of heart failure where renal flow is markedly reduced. The xanthines also depress the renal tubular reabsorptive transport of electrolytes which is responsible for the major diuretic response to the xanthines. The manner by which tubular reabsorptive capacity is reduced is completely unknown. The difference between the effects of mercurials and xanthines on renal tubular transport is that the former block the renal secretion of potassium whereas the xanthines have no effect on the process (Mudge *et al*, 1950). Diuretic response with xanthines occurs in the absence of any change in filtration rate (Blumgart *et al*, 1934; Walker *et al*, 1937).

Choline theophyllinate possesses certain advantages. Theophylline ethylenediamine (aminophylline) has to be given by injection to obtain a sufficiently high concentration of theophylline in the blood, but therapeutically effective blood concentrations of theophylline can be obtained by the oral administration of choline theophyllinate.

Theophylline ethylenediamine when given orally produces gastro-intestinal irritation in about 33 per cent of the cases whereas choline theophyllinate being a stable compound produces gastro-intestinal complaints in only 4 per cent of the cases. It has been given daily without interruption for as long as 18 months to large groups of patients with few unpleasant side-effects and no tolerance to the drug. When other xanthine drugs are given for long periods, patients develop tolerance to the drug to the point when it is no longer effective.

Method and Material

The investigation was undertaken to study the diuretic action of choline theophyllinate in 28 cases of oedema of varying aetiology during 1957-58.

In Group I (15 cases)—Eight had congestive heart failure due to valvular disease, one due to hypertensive heart disease, and six had chronic cor pulmonale.

In Group II (7 cases)—Anasarca due to hypoproteinaemia in ancylostomiasis and chronic bacillary dysentery.

In Group III (4 cases)—Nephritis type II.

In Group IV (2 cases)—Cirrhosis of liver.

These patients were between the ages 22 and 64 years. Of these, 24 were males and 4 females.

Before the drug was administered, a careful history was taken, physical examination done and laboratory investigations carried out including routine examinations of the urine and renal function tests. The patients were put on ordinary vegetarian diet with low salt content (2-3 g. per day). Fluid intake was allowed according to their choice and a record was maintained. The urine output was measured for two days. Choline theophyllinate was given orally, 200 mg. four times a day. The drug was well tolerated and no gastro-intestinal disturbance was noted nor any allergic manifestation of the drug seen. The fluid intake and urine output were carefully measured daily.

In the cardiac cases the diuretic effect of choline theophyllinate was seen in the absence of any cardiac glycosides. Minerals and vitamins were supplemented when anaemia or hypoproteinaemia was present.

Results

The urine output increased from 44·92 to 70·7 ounces with approximately the same fluid intake and administration of 800 mg. of choline theophyllinate.

When the progress of the cases was followed for a further four days of therapy, the diuretic effect of this drug was more evident, and the average initial diuresis of 44·92 ounces increased to 70·7 ounces on the 1st day, 68·8 ounces on the 2nd day, 67·4 ounces on the 3rd day and 71·7 ounces on the fourth day (Fig. 1).

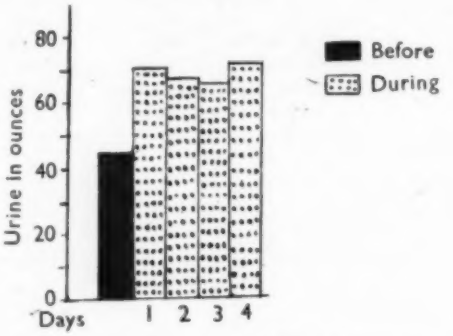

Fig. 1—Showing Urinary Output Before and During Therapy for Four Days

From Fig. 1 it is evident that the diuretic effect of choline theophyllinate is marked during the first 24 hours of therapy after which the effect slightly diminishes and then rises again. But there is not much difference between average figures during these four days of therapy. There was increase of an average of 25·78 ounces of urine when compared with the initial urinary output without choline theophyllinate.

Fig. 2 shows relation of diuretic response in a few cases and the effect on body weight. In Cases,

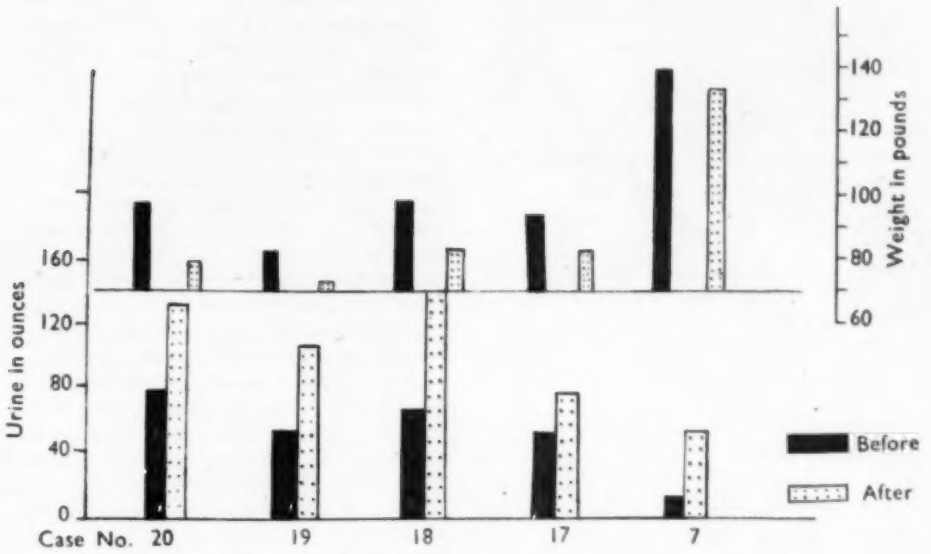

FIG. 2—SHOWING DIURETIC RESPONSE AND ITS EFFECT ON BODY WEIGHT

7, 17, 18, 19 and 20 the reduction in weight is significant from 139 to 133, 94 to 83, 98 to 84, 82 to 72 and 98 to 80 pounds respectively, an average of 12 pounds reduction per case during the four days of medication.

The diuretic effect of choline theophyllinate was studied with respect to the fluid intake also. The output varied with the amount of fluid taken.

The average fluid intake in these cases was 54·72 ounces and the average urinary output was 87·4 ounces during the 4 days of therapy (Fig. 3).

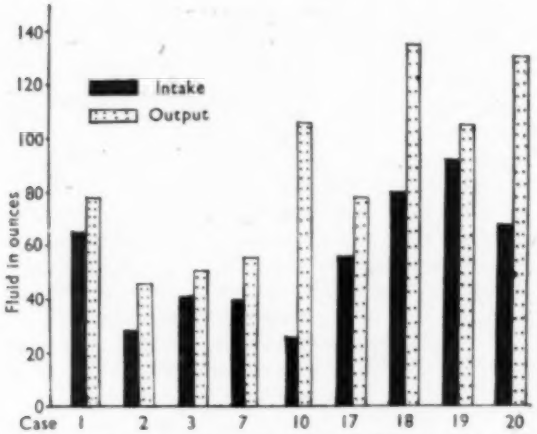

FIG. 3—SHOWING FLUID INTAKE AND URINARY OUTPUT DURING THE FIRST FOUR DAYS OF THERAPY

The excess of 32·7 ounces of fluid was lost per day. The drug could be given for fairly long periods without any ill effects. From the follow-up of this case it is evident that the drug could be given for a fairly long period with maintenance of good diuresis.

The results of treatment were best seen in Group I (cardiac cases) in which 32·27 per cent had good response, 14·25 per cent fair response, and 7·15 per cent poor response. The oedema disappeared quite rapidly.

In Group II (cases of hypoproteinaemia) the results were moderate as good response was seen in 17·85 per cent and poor in 7·15 per cent of the cases.

In Group III (cases of nephritis) there was fair response in all the 4 cases (14·25 per per cent).

In Group IV (cases of cirrhosis of the liver) result was poor in the 2 cases (7·15 per cent).

Assessing the result of diuresis and clinical response as a whole, good results were seen in 50 per cent, fair in 28·6 per cent and poor in 21·4 per cent of cases.

DISCUSSION

Choline theophyllinate seems to be a good diuretic in congestive heart failure due to valvular lesion, hypertensive heart disease or cor pulmonale. Oedema due to hypoproteinaemia does disappear with this diuretic but certain cases prove refractory. Oedema in nephritis and in cirrhosis of

the liver reacts poorly to this drug. The results have been judged by observing the diuretic effect of the drug as well as the disappearance of the oedema from different parts of body.

Summary

Choline theophyllinate has been used in 28 patients with oedema of varying aetiology.

The average dosage used was 800 mg. a day in divided doses.

The diuretic response was well marked during the first twentyfour hours and maintained when the drug was given for a fairly long period.

The drug was seen to have good diuretic effect in cardiac oedema and a moderate one in fluid retention of hypoproteinaemia.

The side-effects were nausea and occasional vomiting in a few cases.

Acknowledgments

Thanks are due to Superintendent, Patna Medical College Hospital, to Messrs. Allen & Hanburys, Ltd. for liberal supply of choline theophyllinate (Choledyl), to Dr. K. N. Jha, House Physician, for follow-up of the cases, to Staff Nurse C. S. Thangama for careful maintenance of records of fluid intake and output of these patients.

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PRACTITIONERS' SERIES

ANTIBIOTICS IN INTESTINAL SURGERY

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The gastro-intestinal tract normally harbours a large number and variety of micro-organisms. Although modern aseptic surgery rules out the possibility of implantation of foreign pathogenic organisms during the operative technique, the post-operative period has not always been immune from infective processes. The dormant flora of the intestines may be awakened during the handling of the bowels, thereby causing a flare-up, the micro-organisms trying to seek out vantage points such as leaks through sutures which may set up infections, localised or general. The control of intestinal flora has, therefore, always been a problem in intestinal surgery.

The advent of the sulpha drugs placed the surgeon in a better position. He had an agent which could successfully control or even destroy some of the micro-organisms that normally inhabit the gastro-intestinal tract and yet are potent pathogens. Such compounds of sulphonamides which are sparingly or not absorbed from the intestines, e.g., sulphaguanidine, pthalylsulphathiazole, etc., were given to patients both during the pre- and post-operative periods to control the microbial flora of the intestines with a view to sterilise the gut. Sulpha drugs, as we are aware, have however their limitations. They fail to control all the varieties of micro-organisms that inhabit the intestines, they are also not very safe in the strict sense of the term. The partial control over the intestinal flora has its dangers too. The organisms that are not acted upon can flare up bringing in its trail the dangers that come from such action. There are on record cases of peritonitis, infections of the suture points and localised gangrene of the gut caused by the organisms which the sulpha drugs failed to control.

With the introduction of antibiotics, agents capable of controlling a wider range of microbial flora became available. Penicillin, the first of the series, although potent enough to control the gram-positive and gram-negative cocci, the clostridia, and some of the gram-positive bacilli, is not very effective against the host of gram-negative bacilli that lodge in the intestines. It is an excellent antibiotic otherwise for general surgery as well as for intestinal surgery as an adjuvant with some other antibiotics.

Of the newer antibiotics that were subsequently discovered, the broad-spectrum antibiotics, e.g., chloramphenicol, chlortetracycline, oxytetracycline, tetracycline proved superior to penicillin for intestinal surgery. They have the advantage of not only acting upon the gram-positive and gram-negative cocci, clostridia and some of the gram-positive bacilli, but wield also considerable influence on a host of gram-negative bacilli including the escherichia, salmonella, etc. In spite of these favourable features, the broad-spectrum antibiotics have not proved to be the drug of choice for intestinal surgery, due to some of the drawbacks and difficulties subsequently observed during therapy.

The major drawbacks associated with these antibiotics are the intestinal discomfort and distress they sometimes caused. Nausea, distension

or flatulence, and even diarrhoea may be features with this therapy. These are no doubt undesirable for patients who have undergone surgery of the intestines. The other danger that is sometimes associated with the prolonged use of these antibiotics is the delayed return of the normal flora and the subsequent undesirable activity of some of the organisms that get implanted, e.g., candida, etc. Severe types of candida or monilia infections have been observed amongst patients treated with these antibiotics. In the United States of America, some of the newer antibiotics have also been given a fair trial. Neomycin, as a single antibiotic, has given satisfactory results. It is quite effective in reducing the stool count of streptococci, staphylococci, coliform bacilli, and bacteroids. Besides, it promotes the growth of yeasts and helps the quick return towards normal intestinal flora. However, the majority of surgeons today prefer combination of antibiotics to any single antibiotic.

The advantages of combinations may be summed up as follows:

(i) Wider zone of action with special selective activity.

(ii) Lesser dose of any single antibiotic has lesser toxicity and side-reactions.

(iii) Least permanent disturbance to the normal relationship of the bacterial flora of the intestines.

(iv) Shorter period of therapy.

A large number of combinations have been tried, combinations of sulpha drugs with antibiotics or one antibiotic with another antibiotic. Naturally a large number of such combinations have been tried. Some of the combinations that have proved useful are being listed below:

1. *Sulphathalidine-neomycin*:

Usual dose: 1·5 g. sulphathalidine and 1 g. neomycin, every hour for four hours, then every four hours for 72 hours.

Result: Complete control of streptococci, coliforms, clostridia and bacteroids. There is no appearance of staphylococci. Evidence of yeast proliferation. Absence of gastrointestinal side-reactions.

Remarks: Recommended for pre-operative sterilisation of the intestines.

2. *Oxytetracycline-neomycin*:

Usual dose: 200 mg. oxytetracycline and 1 g. neomycin every four hours for 72 hours.

Results: Satisfactory reduction of streptococci, staphylococci, coliform organisms and bacteroids. Indirect evidence of yeast proliferation. Absence of disturbing side-reactions, as evident with oxytetracycline alone.

Remarks: A satisfactory combination for pre-operation treatment of the bowel.

3. *Erythromycin-neomycin*:

Usual dose: 250 mg. erythromycin and 1 g. neomycin, every hour for four hours, then every six hours for 72 hours.

Results: Causes rapid disappearance of streptococci, staphylococci, coliform organisms, clostridia and bacteroids. Adequate yeast proliferation. Absence of disturbing side-reactions.

Remarks: A satisfactory combination for pre-operative preparation of the bowel.

4. *Tetracycline-neomycin*:

Usual dose: 200 mg. tetracycline and 1 g. neomycin, every hour for four hours, then every six hours for total of 72 hours.

Results: Decreases streptococci, coliform organisms, clostridia and bacteroids, staphylococci not uniformly eliminated. Evidence of yeast proliferation. No undesirable side-reactions as evident with tetracycline alone.

Remarks: A satisfactory combination for pre-operative preparation of the bowel.

5. *Bacitracin-neomycin*:

Usual dose: Bacitracin 40,000 units, neomycin 400 mg. every six hours for total 72 hours.

Result: Rapid and complete control of the microbial flora of the intestines, e.g., streptococci, staphylococci, coliform organisms, clostridia and bacteroids. Evidence of yeast proliferation. Absence of undesirable side-reactions.

Remarks: A satisfactory combination for pre-operative preparation of the bowel.

Some of the other combinations giving satisfactory results are: Polymixin B-neomycin, and neomycin-nystatin. Some of the antibiotics have special selective action on staphylococci, and as such could be employed if stool cultures show special preponderance of this organism. These are: bacitracin, oleandomycin, soframycin and novobiocin.

The proper selection of the combination can be made after a screening test. As a routine therefore it is always desirable to examine before the operation the stool of the patient who comes for

intestinal surgery. Sensitivity tests of the microbial flora isolated against the antibiotics enable proper selection of the drugs.

Laboratory examination of stools: Take 0·5 g. of fresh sample of stool, and dilute serially with sterile water from 10^3 to 10^{10} dilutions. From each of dilution 0·10 ml. are inoculated as follows:

1. One blood agar plate—for incubation at 37°C—aerobically.
2. One blood agar plate—for incubation at 37C°—anaerobically.
3. One MacConkey agar plate—for incubation at 37°C—aerobically.

Colonies are examined after appropriate intervals and organisms identified. Drug sensitivity test could be arranged for the organisms isolated at this stage. The following organisms should be particularly looked for during isolation and identification.

Cocci—Streptococci, staphylococci, enterococci.

Bacteria—Coliform organisms, clostridia, bacteroids.

The stools should be examined not only immediately after admission but also after the course of pre-operative therapy to study the effect of the drugs on the microbial flora.

The other routine procedure: minimal residual diet, saline laxatives and enema are to be followed as usual. In those desperate cases where oral therapy is not possible, some of the American hospitals adopt the following measures:

Day before operation—Penicillin 600,000 units and dihydrostreptomycin 1·0 g. parenteral. Day after operation—Penicillin 300,000 units and dihydrostreptomycin—0·5 g. parenteral. Besides the pre-operative oral therapy, in some of the American hospitals suitable antibiotics are also introduced intralumen during operation to minimise the risks of post-operation infections.

To hasten the replacement of normal flora of the intestine and to avert the mischief caused by candida or the pathogenic types of staphylococci, some prefer giving the patients, during the post-operative stages, living cultures of yeasts, lactobacilli or *Esch. coli*. The benefits of such therapy have yet to be assessed. Antibiotic therapy as a prophylactic measure for intestinal surgery has definitely minimised the risks of post-operation infections of the peritoneum and the bowel. Success, however, much depends on the proper selection of the antibiotics particularly and preferably after properly studying the intestinal flora.

SPECIAL ARTICLE

A REVIEW OF LITERATURE ON PINTA—A NON-VENEREAL TREPONEMATOSIS

With a Note on the Study of the Disease in Bengal

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INTRODUCTION

Synonyms: Mal del Pinto, Carate, Azul, Boussarole and a variety of local names. Pinta comes from the Spanish verb, pintar—to paint, after the pigmentary lesions in the tertiary stage.

Pinta has been defined as an endemic non-venereal form of syphilis characterised by pigmentation, depigmentation and caused by *Treponema carateum*. Some prefer to include hyperkeratosis also.

Text books noted down the occurrence of pinta in the western hemisphere (Napier, 1946; Mackie, *et al*, 1954). But Van Rootselaar (1957) has cited that Simons (1949 and 1952) had observed the disease in Indonesia. Marquez *et al* (1955) observed it to be highly prevalent in Mexico, Colombia, Ecuador, Venezuela, Bolivia and to a lesser extent and in an isolated manner in Cuba, Brazil, the Guianas, Guatemala, Honduras, Haiti in the Dominican Republic, Argentina and in Africa (Ormsby and Montgomery, 1954), in Asia (Simons, 1952) and in Oceania (Allen and Goodale, 1946). Napier (1946) has stated that questionable cases have been noticed also in India, Iraq, Malaya, Philippines. Panja (1950) reported that he had seen pinta cases as early as 1922 in Bengal (India) and he cited two references (Das Gupta, 1944 and Ghosh, 1948) of later dates. Allen and Goodale (*loc. cit.*) surveyed some 2,006 natives of Guam of which 39 were found with lesions suggestive of pinta. Apart from clinical findings they noticed high percentage of seropositivity inspite of lack of any definite history or lesion suggestive of syphilis or yaws.

It is evident, therefore, that though the incidence of the disease has been reported from many parts of the world it is endemic in tropical regions of the western hemisphere affecting chiefly the dark-skinned races. Ormsby and Montgomery (1954) have cited Pequeno (1942) that 'It apparently existed in America for many years before the arrival of the Spanish'. Strong (1945) also suggested that it apparently existed among the Aztecs at the time of Spanish conquest and that Cortez established a sanatorium. This was thought to be a form of leprosy. Ormsby and Montgomery (*loc. cit.*) estimated that about one million persons in Latin America were affected with pinta. Marquez *et al* (1955) gave the figures as 400,000 cases in Colombia and more than half a million in Mexico. The percentage of population affected varied from place to place, the incidence of infection in Mexico is 11 per cent of the population (Fox, 1949) and in Colombia 4 per cent (Napier, 1946).

Epidemiology

Climate—Leon (1951) observed that the incidence of pinta varied from one sub-tropical valley to another in Ecuador. Napier (*loc. cit.*) said that it has a limited distribution in the tropics of the Western hemisphere. According to Strong (*loc. cit.*) yaws and pinta are prevalent in barren, moist climates and seldom found in 'dry' areas. Thus in Guam, the southern part of the island where pinta is endemic the region is mountainous and thick forests are abundant. The humidity is high (80 to 90 per cent). Saenz *et al* (1940) reported that incidence of pinta in Cuba was 'favourable because of high mean temperature, high humidity and high rain fall'.

Community—Pinta is prevalent in low socio-economic group of the population living under unhygienic conditions. Marquez *et al* (*loc. cit.*) observed that 'it rarely attacks those who are clean and well-clothed, and it seldom occurs in urban communities'.

Age—Rootselaar (*loc. cit.*) observed that his Indonesian patients were all over 30 years of age, while Marquez *et al* (*loc. cit.*) reported that 'pinta is essentially a disease of infancy and childhood'. Napier (*loc. cit.*) stated that age-incidence varies in different countries. However most of the observers agree that it is uncommon if not rare to find pinta in children below 5 years (Marquez *et al*, *loc. cit.*). Leon (*loc. cit.*) in Ecuador noted that the disease is most often contracted in the second and third periods of childhood. In Mexico, in the group of cases studied by Marquez *et al* (*loc. cit.*) the frequency of disease within 15 years of age was 61·6 per cent and the incidence is slightly more common in females than in males. Ghosh (*loc. cit.*) had observed 73 cases out of his 114 to be between 16-40 years and 3 cases under 15 years with a preponderance in males (84 cases). Pinta affects dark-skinned races predominantly.

Transmission—Treponema carateum enters through a minute injury or abrasion in the skin. Discharges from hyperkeratotic cracks have plenty of *treponema carateum* (Mackie *et al*, 1954). While Marquez *et al* (*loc. cit.*) stated it to be transmissible 'by casual contact', Leon (*loc. cit.*), Brumpt (1939) cited by Rootselaar (*loc. cit.*), Willcox (1950), Ormsby and Montgomery (*loc. cit.*) were of opinion that some insect vectors undoubtedly played a part. Marquez *et al* (*loc. cit.*), however, said that 'Hippelates naturally infected with *Treponema carateum* have never been found'. They firmly held the view of contact infection and cited cases of infection in two babies by their infected mothers who held them for long periods in their arms, the primary lesions developing precisely at the point of 'contact with active pinta lesions'. They also quote from their studies that 88·9 per cent of patients 'had infected relatives living in the same house while 6·6 per cent had infected relatives not living in the same house'. Ormsby and Montgomery (*loc. cit.*) reported that the treponeme responsible for pinta had been demonstrated in bed bugs. Many observers were of opinion that an insect vector played a part. Napier (*loc. cit.*) believed both possible and the insect vectors *Hippelates pallipes* and *Simulium haematopotum* to be responsible for transmission. Van der Hoff (1956) while discussing yaws, in South West Borneo opined that *Siphunculina funicola* might be responsible for the transmission of treponemes, and he had cited numerous authors in support of this view.

Unlike syphilis, pinta is not transmitted prenatally.

Aetiology

Saenz and his associates (1940) in Havana, Cuba, first discovered *Treponema carateum* from the serum obtained on scraping an active lesion of pinta.

Treponema carateum morphologically is inseparable from *Treponema pallidum*. The usual measurements of *Treponema carateum* are 12-20 microns, mean being 17 microns with a variable number of spirals 1 micron apart (Napier, 1946).

Before the discovery of *Treponema carateum* the disease was thought to be of fungal origin. The theory of fungal origin reigned for about 40 years. It was due to the work of Montoya Flores,

quoted by Fox (1949), who identified fungi of the genera Aspergillus, monilia and penicillium in Bogota from patients suffering from pinta. Fox (1949) also got those fungi in Columbia and Mexico.

The fungal theory, however, was looked upon with suspicion after a report of Menk in 1927, quoted by Fox (1949). He obtained about 75 per cent seropositivity (W.R.) in patients suffering from pinta. In 1930 Gonzales Herrejon (as a leader of a Mexican Commission) obtained 97 per cent seropositivity in pinta cases.

The following are the principal factors which discredited the theory of fungal origin.

(*a*) Fungi could not always be obtained from the lesion.
(*b*) Fungal inoculation has not produced pinta.
(*c*) Presence of a rare type of pinta (Hemi-pinta) where symmetrically only one half of the body is affected.
(*d*) That the disease is amenable to anti-syphilitic treatment.
(*e*) Complement fixation of pinta test positive in a high percentage of cases.

Blanco quoted by Fox (1949) along with 27 volunteers infected themselves with treponeme and noted the initial lesions 'often followed with lesions of dissemination which he called pintids' (Fox, 1949). The initial lesion appeared 7 to 10 days after inoculation. Marquez *et al* (1955) in their studies in Iguala, Mexico, tried to transmit pinta through blood transfusions but they failed. They had not noted any visceral, cardiovascular or central nervous system affection due to pinta. They quoted figures of R. Abarca of Iguala, Mexico, who examined radiologically more than 1,000 miners but no greater incidence of cardio-vascular affection was observed. 50 per cent of the miners of the area, however, suffered from pinta.

Saenz *et al* (1940) successfully inoculated rabbit's cornea and testis, and obtained lesions chracteristic of experimental syphilis.

Clinical Features

Similar to other treponematosis clinical features in untreated pinta can be divided into the following 3 stages:

Primary stage lasting from 5 months to 1 year after infection. Secondary stage occurring 6 months to 1 year after infection. Tertiary stage occurring years after primary stage.

Latapi and Leon y Blanco (1940) mention that the first manifestation of the disease starts about 7 to 10 days after inoculation. Oteiza (1945) in his inoculation experiments has encountered an incubation period of upto 61 days. Marquez *et al* (1955) observed incubation period of 15 to 30 days before the appearance of a small, slightly scaly papule at the point of inoculation. Ormsby and Montgomery (1954) describe the primary lesion as being an 'erythemosquamous plaque 10 cm. or more in diameter'. They have also said that the lesion often enlarges by coalescing some satellite lesions. In Mexico, Marquez *et al* (1955) observed three types of lesions, viz., (a) erythematous, (b) circinate and (c) psoriasiform.

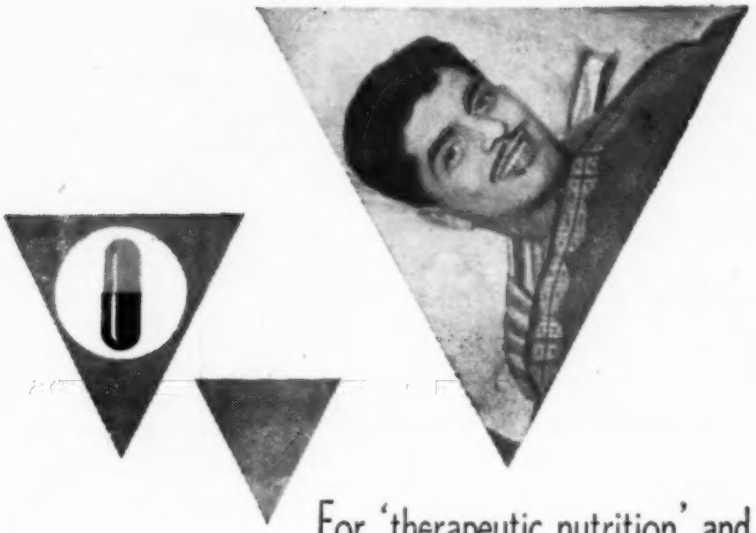
Primary stage—To start with the lesion is erythemosquamous and as the lesion ages itself it becomes circinate or psoriasiform. The last 'is scaly, red-salmon or reddish white, sharply marginatised'. If the primary lesion persists till the appearance of the secondary stage, pigmentation occurs in the primary lesion. The primary lesion heals by a leucodermic patch. The lesions most commonly occur over the exposed parts but not on the genitalia. In order of frequency the lower extremities are affected most.

Secondary stage—Following the syphilis analogy, the secondary lesions are often called 'pintids', particularly for disseminated lesions. Though Ormsby and Montgomery (*loc. cit.*) noted the secondary stage to last from 6 months to one year after infection, Marquez *et al* (1955) observed that secondary lesions took one month to one year or more to develop. The lesions vary in number but may be identical in appearance as in primary stages. In secondarily infected lesions crusting has been observed. The macules or papules often remain unaltered but may slowly grow to a diameter of 7 to 25 cm. (Ormsby and Montgomery, *loc. cit.*) The different types of pintids are psoriasiform, syphiloid, trichophytoid, lichenoid, eczematoid and circinate.

The pintids may become pigmented with age. The colour variations noted are 'copper coloured, then lead-gray and after some time slate-blue'. Pintids in the exposed parts are rapidly pigmented. No anaesthesia is present. But there is considerable itching. 'Ashen lesions covered with adherent powdery scales have been observed'. Ormsby and Montgomery (*loc. cit.*) have stated that in 'white peoples the lesions are pink, red or brown' while in the dark skinned they are 'purple, blue or slaty'. This phenomenon is probably due to some sort of photosensitisation.

Recurrent pintids at the original sites are not a rarity. Such lesions often have keratotic characters. These also undergo similar achromic changes.

Late stage—This stage is characterised by pigmentary disturbances, often years after primary infection. In some instances, of course, the in-



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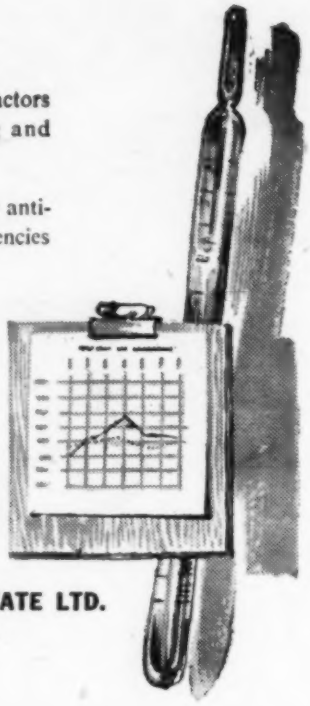

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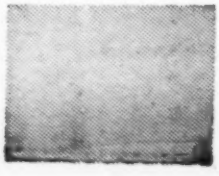

tervening period has been reduced to months. Marquez *et al* (*loc. cit.*) observed many patients in Mexico who had recurrent secondary lesions with achromic lesions in 3 months following onset. Unlike other common treponematoses (syphilis and yaws) pinta has a predilection for skin involvement solely affecting the pigment balance. Usually the vitiligoid patches appear at the site of secondary lesion soon after the healing of the 'pintid'. It is a slowly progressing stage. This slow progress and the irregular distribution of achromic lesions account for a variety of hypochromia around dyschromic and achromic lesions.

Rootselaar (1957) has described the patch as 'it looks as if the pigment of the discoloured patch has accumulated in the normal parts of the skin'. Usually the lesions are symmetrical. But atypical affection of one half of the body has been met with and is known as 'hemi-pinta'.

Marquez *et al* (*loc. cit.*) are of opinion that the hyperpigmentation is due to photosensitisation and also comparable to other types of phostosensitised melanosis. In Cuba, various grades of palmar or plantar hyperkeratosis are common. Rootselaar (1957) in Indonesia observed the hyperkeratosis to extend from the soles of feet to the lowest part of leg or forearms from lesions in the hands. While comparing the Indonesian pinta with Mexican pinta, Rootselaar is of opinion that the hyperkeratosis and 'shifting of clinical symptoms to older age group' is due to prevalence of yaws. As an example he said that in Mexico there were no cases of yaws and correspondingly no cases of hyperkeratosis in pinta.

In very late cases of pinta the skin on certain areas of 'forearms, legs, back of the hands' show 'poikiloderma-like atrophic changes'.

Ormsby and Montgomery (*loc. cit*) noted a varying degree of lymph gland enlargement and prevalence of aortitis. They also noted changes in cerebrospinal fluid similar to syphilis.

Histopathology

Primary and secondary lesions show the same histopathology. Marquez *et al* (*loc. cit.*) noted 'moderate acanthosis, slight spongiosis with moderate inflammation of the upper portion of the dermis'. However *Treponema carateum* is limited to the epidermis and not to the dermis (Ormsby and Montgomery, *loc. cit*). The pink colour of some of the lesions marked in whites is due to dilatation of blood vessels later followed by 'pigmentation in the basal and dendritic layers'. The pigment continues to accummulate in the chromatophores in the cutis (Anderson, 1957). The inflammatory exudate (Ormsby and Montgomery, *loc. cit.*) is composed of 'lymphocytes with some histiocytes, plasma cells and neutrophils'. Contrary to syphilis, 'the vessels of the dermis do not show proliferation or obliteration of their lumina'. Panja (1950) noted scarce plasma cells, but there were marked mononuclear infiltration in the papillary layer of the dermis.

In late cases of pinta, the vitiligoid lesions show disappearance of the pigment. The poikilodermia-like atrophic changes show 'thinning of rete pegs, dilatation of superficial vessels, liquefaction-degeneration of basal cell layer'. There is also 'destruction of elastic fibres. Hair follicles and sebaceous glands are absent in such cases'. Blanco quoted by Fox (1949) demonstrated that treponemes were only found in the epidermis and pilesebaceous follicles in later stages (cited by Marquez *et al*, 1955).

Treatment

It is obvious that a host of remedies had been tried before the exact aetiological factor was known. But since then, with the advent of other treponemicidal drugs each one has been tried with beneficial result. It is however impossible to revert the atrophic lesions and those with pigmentary disturbances to normal, completely. Napier (1946) advocated oil bouchi (*Psoralea corylifolia*) to augment repigmentation. Arsenotherapy was also tried as it came into vogue in the therapy of treponematosis. Marquez *et al* (1955) cited Zozaya, Varda and Castro Eastrada that they in 1947 treated some pinta cases with penicillin. Later on Rein *et al* (1952) treated a group of 655 pinta cases in Mexico with 4 c.c. (1,200,000 units) of PAM in single dose with satisfactory results, clinically and serologically. Rein *et al* (1953) more recently treated some cases with a combination of benzathine, procaine and crystalline penicillin with satisfactory result.

Discussion

Willcox (1950) is of opinion that between yaws and syphilis there are some diseases which though more akin to syphilis are 'predominantly extragenital' and these diseases include bejel, pinta and other endemic diseases like Australian boomerang leg, Njovera of Southern Rhodesia, etc.

Hudson (1958) in his beautiful monograph 'Non-Venereal Syphilis' (Bejel) has put forward his 'unitarian concept' of the different treponemal diseases pivoted on a triangle formed between host-parasite and environmental relation. However Moschella (1956) said that 'Upon review of the literature, one gathers the impression that

where pinta is endemic, the unitarian concept is least accepted ; that where bejel is endemic, the concept is most acceptable, and that where yaws is endemic, there are mixed reactions. TPI antibody appears to be produced by an antigen 'common to the different strains and species of treponema pallidum and appears to be of no measure of immunity'. Moreover when one ponders over the fact that even under an electron microscope treponemes of different diseases (pallida, pertenue) are morphologically indistinguishable, one cannot but reserve the opinion over the controversy of unitarian *versus* individual concept of these diseases.

It has already been discussed that before the observation of Menk, it was solely thought to be a disease due to chromogenic fungi. After Menk (1926) quoted by Allen and Goodale (1946) and Fox (1949) but before the discovery of the responsible treponema, the aetiologic camp was divided. The serological and immunological aspect is also curious. A patient can be re-infected with pinta in the early stage but not in the later stages. About 60 per cent of cases in primary and secondary stage give a positive complement fixation and flocculation reaction while in the late stages the STS is 100 per cent positive. The difference between pinta and yaws particularly in later stages is that in pinta there is never any ulceration elsewhere and that pinta very very rarely affects other than a dark skinned person. Willcox (*loc. cit.*) quoted Varela and Avila and gave a figure of 42 per cent affected with aortitis and other cardiovascular symptoms. Anderson (*loc. cit.*) stated 'that there are affections of cardiovascular system and W.R. of C.S. fluid positive in about 10 per cent of cases.

Though there is some controversy regarding cross-immunity between syphilis and pinta, Marquez *et al* (1955) recently reported that there is no cross-immunity between the two, Leony Blanco also showed that there were no cross-immunity. Marquez *et al* further reported that even with the help of specific tests of Nelson the different strains of treponemes of syphilis and pinta, have not been differentiated.

Pinta in Bengal

Panja (1950) observed pinta to occur in adults and middle-aged persons (4 to 45 years). Out of his 15 cases only one was female.

Ghosh (1948) in 'an analysis of 50,000 skin cases as seen in the out-patients' department of School of Tropical Medicine, Calcutta, during the five years from 1942 to 1946' noticed percentage of pinta cases as 0·228. His analysis of different age groups has already been given.

Sex distribution : Male—84 ; Female—30.

The corresponding figure for yaws is 0·004 per cent.

In the V.D. Clinic, Medical College Hospitals, Calcutta, five cases of pinta attended in the year 1957 and six cases in 1956. In the year 1956 total number of new cases was 10,445 and in 1957 the figure was 9,892. The patients were inhabitants of Bengal (high humid and warm climate). They represented both the lower socio-economic group and middle class group with slight preponderance of the former. The age incidence as observed was between 25 and 42 years. All the patients presented themselves in the tertiary stage of disease, because of the disfigurement due to pigmentary disturbances. Hyperkeratosis was present but not so prominent as in a typical case of yaws. The palms and soles as presented were just rough to the touch and were covered with very fine scales. The lesions were more common in upper extremities than in the lower though both the hands or feet may be affected singly or combined. Affection of one hand or foot also occurs. No history of any genital sore or exposure could be elicited. The serology was always positive. In India, cases of yaws are noticed in central India extending to Orissa Coast.

The tests done were V.D.R.L. (Qt), W.R. (Price's technique, 1950) with cardiolipin antigen and Meinicke (MKR II). Except in 3 cases, no examination of their families could be done due to lack of co-operation. The family members examined were all negative clinically and serologically. Several tissue sections of affected skin were examined after Levaditi's method of staining but no *Treponema carateum* was seen.

All the cases were treated with 10·2 mega units of PAM (procaine penicillin G in oil with 2 per cent aluminium monostearate) divided into 17 biweekly injections of 0·6 mega units. It is curious to note that there were no appreciable fall of VDRL quantitative titre in comparison with that of syphilis. Following penicillin therapy, some of the cases were given unit courses of arsenic and bismuth injections. The quantitative titre dropped a little and was at the same titre during the period observed. No C. S. fluid changes were observed.

The higher age incidence is probably due to ignorance on the part of patient to seek medical advice during the early stages. Does the hyperkeratotic lesion indicate concomitant yaws infection? Unless a special epidemiological survey in selected areas is done—no opinion can be given.

At present there are 13 Government V.D. clinics in Calcutta and 27 in district headquarters excepting private clinics. The number of cases reported, do not represent the total incidence of pinta cases in this part of India. It can be well assumed that very often, the diagnosis of pinta is overlooked and is not given the importance it deserves.

The number in the present series of cases is too small for practical purposes except as a reminder that pinta cases though not endemic, yet do occur in this part of the peninsula. It is high time we watch for this non-venereal form of treponematosis.

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MEDICAL EDUCATION

AN EXPERIMENT IN MEDICAL EDUCATION: A PLEA FOR EMPHASIS ON TEACHER TRAINING†*

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Introduction

During the last decade the mass of scientific facts in medicine and allied sciences has grown enormously.

In most countries there has developed an interest in re-evaluating and where indicated modifying the structure of the educational programme. Such an interest has been very much in evidence in our own country since Independence. Even during recent times there was a seminar on teaching of physiology at the annual meeting of the All-India Association of Physiologists and Pharmacologists at Indore, in which teachers of physiology from South Asian countries also participated.

This emphasises the growing interest in medical education in our country, probably born out of the awareness that all is not well with the present system of teaching.

Such a re-evaluation is going on in all countries. All such programmes, however, take into account only the 'learning' part of the 'teaching-learning process.' This article is a report on an experiment, where this defect in organisation of medical education was realised and an attempt was

† A report based on a course "Medical Faculty Training Programme" attended by the author at the Graduate School of Medicine, University of Pennsylvania, Philadelphia, U.S.A.

* The Editor does not associate himself with the views of the author.—Ed., *J. Indian M. A.*

made to organise training for medical teachers. The plea for such a course and its contents are outlined in some detail because I feel that it will be profitable to have this idea better known in our country, specially when we are having many new medical schools and are trying to evaluate our teaching programme.

A Case for Teacher Training

A case for teacher training is today stronger than ever before. Like the student, the teacher also is inundated with a mass of scientific facts, which it is difficult to keep abreast of.

In view of the impact of many other scientific disciplines on medicine and medical research, and the impact of changing social and economic pattern, a more fundamental and basic change in interdisciplinary approach to medical education is essential. The task becomes difficult when it is realised that the disciplines that influence medicine are many and are growing fast.

As I said there is a greater general awareness of these facts, today than ever before. Few countries, however, have the resources and initiative to break from the traditional as the United States possesses. Even in the States only a few universities are physically and intellectually prepared for such an innovation. Fewer still have the courage to launch such a programme. However in a few schools in the United States, experiments in medical education were started which were a total departure from the established systems of teaching medicine. A good example is the experiment carried out at the Western Research University, which is fairly well known. It is obvious that all these experiments, concentrated only on the "learning' part of the 'teaching-learning' process.

It was obviously difficult for most people to accept that the teacher himself needed improvement and training to do his job efficiently. The 20th century is characterised by the unexpected development of scientific tools. A great part of the understanding of human physiology and pharmacology has come from the use of scientific tools. Another characteristic feature is the affiliation with other sciences. Physics, for example, has contributed to a vast field of electronics, optical spectrophotometric methods, flow-meters etc. Similarly chemistry and many other sciences have furnished new tools.

If a medical teacher has to do his job well, he must have a reasonable grasp of the fundamentals of these various sciences. This trend of thinking contrasts very strongly with the present trend of accepting anybody as a teacher who has acquired the much coveted medical degree. I do not wish to underestimate the medical degree. I do, however, wish to state clearly that a medical graduate, however brilliant, needs some polishing before he qualifies to be a medical teacher.

We are all willing to grant a further period of training to an M.D. for specialisation. The sooner we accept that teaching is a speciality, like any other, the better for us. It will make it easier for us to accept the change, and help us adjust ourselves to the changing requirements.

We all agree that it is the 'Faculty' that makes a school. It must be accepted that even in the best medical schools there is a gap between teaching we give in classes and the research we carry out in our laboratories. The narrower this gap is the better will be the education. One way to narrow the gap is to have a better trained faculty. This also is the main justification for implementing such a course.

Graduate School of Medicine, Pennsylvania

A definitive attempt in this direction was made by Dr. Julius H. Comroe, Jr., Chairman of the Department of Physiology and Pharmacology who evolved a course at the Graduate School of Medicine, University of Pennsylvania.

Objective—The purpose of this unique course is threefold.

(i) To improve teaching ability largely by practical work, utilising a group technique.
(ii) To provide a good scientific background for medical research.
(iii) To provide advanced training in a speciality.

Admission requirements—Candidates must be well trained in one of the basic medical sciences or in one of the specialities. Preference is given to candidates who have been approved for advanced training by their own deans or departmental chairmen, with the underdstanding that after the academic year at the Graduate School of Medicine they will return to full-time academic positions in their own medical school or hospital. The programme attracted faculty members from Brazil, Chile, Columbia, Philippines, India and U.S.A. This itself is a tribute to the course.

Contents of the course—The course was divided into three trimesters and attempted to cover the following topics:

The first trimester was devoted to statistics and mathematics as applied to medicine. Calculus was covered including differential equations and partial

differential equations. The fundamentals of statistical theory, its usefulness and limitations were discussed. Design of experiments was briefly touched. The use of calculating machines was encouraged. Critical evaluation of medical literature was undertaken.

The second trimester—The subjects covered were medical physics, chemistry and physical chemistry as applied to medical research. Emphasis was again on principles rather than on operating details. Some of the topics dealt with are stated below as examples ; states of matter, separation and identification of gases, dynamic analysis, thermodynamics, chemical kinetics, radiation physics, electronics, photometry, spectrophotometry, microscopy, fluid mechanics, separation and identification of ions and molecules in liquid state, etc.

The third trimester was devoted to the art and science of medical teaching, medical writing, medical administration and critical evaluation of literature.

As part of the practical teacher training, each member of the group had to give a lecture, which was critically evaluated on several points, by the remaining group. The talk was tape recorded, so that the speaker could later play it back and listen to it in the light of the criticism offered. The tape recording also provided an opportunity for the individual to compare his subsequent performances.

An interesting part of this programme was that every speaker had to give a talk during which he was interrupted repeatedly with questions. It helped to train the mind to keep the continuity of thought inspite of distraction.

Another significant and, to my mind, very important part of the teaching programme was the instruction in the art of conducting seminars. This is very different from giving a formal lecture. It is much more difficult and requires much more skill on the part of the chairman. Each member of the group had to conduct a seminar on a topic of his own choice.

At the end of most of these talks very useful suggestions were offered regarding how the contents could have been reorganised or how visual aids could have been improved. It was revealing how much life can be put in the same talk when managed by a master mind.

A course in medical writing comprised two seminars on word usage. Then the numbers of the group corrected some papers submitted for publication. Subsequently they had to write some articles of their own which were critically commented upon and rewritten. It was amazing how many wrong things are commonly written and how much improvement can be brought about by a little care.

Besides the subjects enumerated above the group also attended other courses, which ran simultaneously :

Correlated Medical Sciences—A lecture was held from 12-40 to 1-50 P.M. Monday through Friday. The basic sciences were presented in a co-ordinated series of lectures by the combined staffs of the departments of microbiology, pathology, physiology, physical anthropology, pharmacology and biochemistry. Clinical conferences and panel discussions were interspersed during these hours and brought the clinical faculty into the picture. The idea of these presentations was to bring about an integration between various basic disciplines and to emphasise the relationship between basic sciences and clinical medicine.

The Neurology Seminars—These were held every Monday and Tuesday from 2-5 P.M. throughout the course. The seminars were conducted by distinguished guest lecturers, besides members of the Faculty of the University of Pennsylvania.

The seminars were conducted in an informal atmosphere. Usually a reading list was handed over some time beforehand and the group was encouraged to ask questions. Very often they became very lively question-answer seminars. The seminars demonstrated how all the aspects of a subject may be developed. They offered to participating members the unique opportunity of seeing at close quarters how distinguished people approach and analyse their problems in research.

Critical Evaluation of Medical Literature—Interspersed throughout the course were sessions on critical evaluation of medical literature. Articles selected from classic and less distinguished medical literature were assigned for critical analysis, as to style, content, design of experiment, validity of conclusions, etc. These seminars were conducted by mature investigators.

At the end of this basic course of three trimesters arrangement was made for every individual to have a period of intensive training in his chosen speciality.

The purpose of such a course is to fill a definite place in medical education. There could be some argument regarding the content and organisation of such a programme. It should be conceded that the course may have to be modified to suit local resources and requirements. Considering however that it was the first experiment of its kind ever to be tried anywhere there was

unanimity among the various participants that it was an excellent idea well executed.

Conclusion

The experiment above narrated needs greater publicity in as many countries as possible. It merits the serious consideration of the medical educators of this country, specially so when the number of medical schools has grown considerably in recent times. Most of them are of 4-10 years' standing. The want of proper teaching personnel who are prepared to devote themselves to teaching and training is acutely felt. It is therefore high time now to consider this excellent idea as a part of the medical education programme in India. It must be conceded that the course as outlined above needs a great diversity of talent which may not be locally available at most medical schools. The author feels sure, however, that older seats of learning like Calcutta, Bombay, Madras can pool the necessary talent for instituting such a course at the university level. The course would definitely attract our best medical graduates if teaching as suggested here is raised to the level of a speciality and a medical graduate so trained is accorded the necessary recognition. The experiment deserves careful consideration and I feel is certainly worth a trial at one or two centres.

It may also help to solve the problem of finding teachers to man our newer medical colleges.

Summary

The article contains a brief report on the Medical Faculty Training programme attended by the author at the University of Pennsylvania. The report is meant to emphasise the great need for teacher training in medical education so as raise the standards of teaching. It makes a plea for recognising medical teaching as a speciality and serves as a model on which such programmes may be tailored to suit the needs and genius of our country. The need for training medical teachers exists in our country as much as in any other. It is hoped that the report will merit the serious attention of our medical educators and if instituted in one of the older universities may fill an important lacuna in medical education. It may also serve to provide much better trained faculty to our newer medical schools, and make the job of finding suitable teachers easier.

Acknowledgments

I wish to convey my sincere thanks to Dr. P. C. Rakshit, Principal, M. P. Shah Medical College, Jamnagar, for helpful criticism in the preparation of this paper.

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The author had the privilege of attending the course as a Government of India Scholar on a T.C.M. fellowship and wishes to acknowledge his gratefulness to both the institutions.

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SECOND STUDY TOUR OF EUROPE

OPEN ONLY TO MEMBERS OF THE INDIAN MEDICAL ASSOCIATION

The Working Committee of the I.M.A. at its last meeting held at Visakhapatnam approved that a Study Tour of Europe for members of the I.M.A. be arranged, if permitted by the Government of India. The Tour was to be similar to the Study Tour organised in 1956.

Permission has since been obtained from the Government of India for a group of not exceeding 60 members of the I.M.A.

The duration of the Tour will be approximately six weeks, commencing as soon after the third week of August as possible. The cost of the Tour per member will be about Rs. 6,200/- only. The countries visited will be Italy, Austria, Switzerland, West Germany, France, Belgium, Holland, Denmark and England. Like the previous Tour, this Study Tour will also be operated by M/s. Trade-Wings Ltd. who have been appointed the official agents and M/s. Air-India International. Printed information regarding the Tour is being posted to each member of the Association at his address.

The Tour is open only to the members of the I.M.A.

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CALCUTTA, JULY 16, 1959

DRUGS AND APPLIANCES

Enough has already been said in these columns and elsewhere regarding the necessity of manufacture of drugs and medical appliances in this country. Recently, we have pleasure to note, some progress has been made in this direction. Besides the establishment of a number of factories for the manufacture of essential drugs by the government, some foreign firms also have been permitted to establish laboratories and factories in co-operation with local experts aided by local capital.

It has been estimated that Indian production of drugs during 1958 was valued at Rs. 62 crores. This was nearly double the output in the previous year. The government expected that by the end of the Third Five Year Plan, the production would come up to Rs. 150 crores.

Recently an agreement on co-operation between the Soviet Union and India, in the building of State establishment to manufacture medicinal preparations and surgical instruments, was signed in Moscow. This will play a great role in developing our pharmaceutical industry.

Though we are happy at the progress made recently in the manufacture of drugs, we have to sound a note of caution to the government. There should be a proper planning in respect of the production. The government should hold an enquiry regarding our requirements and regulate productions accordingly. It should also ascertain by an expert committee the stages in the production of drugs in each factory in the country. In a large number of cases, the manufacture starts from basic chemicals or intermediaries imported from abroad. The processing from the raw material to the finished product is done in a very few cases.

Things must be so devised that the complete processing of all medicines manufactured in this country is done here. It may not be possible immediately but a phased programme should be able to achieve this in, say, ten years.

Statistics in regard to the existing stages of processing in each factory should be collected and plans drawn accordingly. Only those foreign firms who agree to do the complete manufacture in a stipulated time should be given the license.

The manufacture of x-ray plates and optical lenses, it is learnt, will start shortly in this country. We shall be glad if attention is paid to speed up the progress.

The necessary facilities for the import of machinery and plants to make India self-sufficient in drugs and appliances should also be provided.

ANTIBIOTICS IN INTESTINAL ANTISEPSIS

Surgery of the gastro-intestinal tract has its limits of safety. The field of operation is potentially dangerous, as it is a place where Lister's theories could not be absolutely applied. The teeming millions of otherwise pathogenic germs live within the lumen of the gut. No amount of external care and asepsis could control or destroy them. Sulpha drugs and antibiotics have however turned the tables against these microbes. The surgeon has now agents which can directly crush them and thus make the gut a sterile board for the operation. The sulpha drugs however had their limitations and new hopes were pinned on the antibiotics which came as one of the pioneer discoveries of this age. Experience however cast doubts, there appeared fresh troubles with some of the antibiotics that were employed for the prophylactic treatment of the bowels. Limited range of activity or suppression of microbes otherwise helpful to the patient, the flare-up of undesirable flora, the implantation of harmful flora and above all undesirable side-reactions like nausea, flatulence or diarrhoea, are some of the drawbacks with some of the antibiotics that were employed for pre-operative sterilisation of the gastro-intestinal tract.

In an article[1] in the current issue, the author, realising these drawbacks, has given us lists of combinations of antibiotics which are capable of sterilising the gut and at the same time are safe and without the drawbacks. These combinations are in extensive use in American hospitals on patients being prepared for intestinal surgery.

Rettger's acidophilus therapy[2] had not succeeded very much in changing the flora of the intestines. We are therefore sceptical about the advice to administer certain live cultures to replace the intestinal flora during the postoperative period.

The success of the therapy largely depends on the selection of the proper antibiotic or combination of antibiotics. A preliminary screening will doubtless make the matter of choice easy, and rational as well.

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[1] De, S. P.—*J. Indian M. A.*, **33** : 48, 1959.

[2] Rettger, L. S. and Chaplin, H. A.—Treatise on the transformation of the intestinal flora with special reference to the implantation of the acidophilus, 1921, New Haven.

CURRENT MEDICAL LITERATURE

Aortic Systolic Murmur in Older Patients

In general, aortic systolic murmurs are of two kinds—those due to aortic stenosis and those due to aortic sclerosis. By aortic sclerosis is meant thickening of the base of the aortic cusps, which have become involved in calcific atheromatous disease of the aorta, but without fusion of the commissures and valvular stenosis.

BRUNS AND VAN DER HAUWAERT (*Brit. Heart J.*, **20**: 270, 1958) recently examined 300 patients over the age of 50 in the general medical wards of a hospital, excluding those with rheumatic, luetic, or congenital heart disease, and detected a systolic murmur in 146 of these cases. The incidence of aortic systolic murmurs increased with age, for they found 37 per cent in the 50 to 59 age group, 47 per cent between 60 and 69, 66 per cent between 70 and 79, and 69 per cent between the ages of 80 and 89 years. Not only did the incidence of murmurs increase with age, but also the proportion of the murmurs that were loud. Phonocardiograms were recorded in 73 of these 300 patients, and the murmur was seen to end well before the second heart sound in every case and to be rhomboid in shape—that is to say, having a central crescendo. This pattern is similar to that seen in aortic stenosis, when, however, the murmur tends to be slightly longer if the stenosis is at all severe. In most of the patients the murmur was best heard over the second right intercostal space, but was also audible in a band down the sternum out towards the apex. The murmur was confined to the aortic area in 14 cases and to the apex in 22. In the remaining 110 cases the murmur was heard in both areas. It was often transmitted into the neck, but a thrill was seldom felt, being present in only three patients. Special note was taken of the presence of a hyperkinetic state, such as anaemia, thyrotoxicosis, or liver failure, or of associated hypertension, since these conditions by themselves may produce a murmur.

Necropsy evidence of the cause of the aortic systolic murmur was obtained in 23 of the 300 patients. Concurrently a special pathological examination of the heart was made in 168 subjects reaching necropsy during the present study, those with a valvular lesion being excluded. Some thickening of the cusps of the aortic valve was found in 120 of the 168 subjects. In mild cases it was fibrous and confined to the central region of the cusp, while in the more advanced cases it spread towards the free margin and there was associated calcification. In all, the free margin of the valve was fully mobile and there was no fusion of the commissures. Great valve thickening was seen only in the older subjects, though not all the older people showed this change. Slight thickening was seen quite frequently from the age of 40 onwards.

Since both thickening of the aortic valve and an aortic systolic murmur were increasingly frequent in the older age groups, it was concluded that aortic-valve thickening without stenosis was probably the cause of the murmur in these patients. This view was supported by the necropsy findings in the 23 patients, who had also been examined by the authors clinically. It was noted, however, that in those patients who had a higher than normal cardiac output the murmur was louder than would have been expected from the degree of aortic valve thickening.

The benign nature of the systolic murmur of aortic sclerosis needs to be recognised and special care taken to distinguish it from the murmur of aortic stenosis, with its more serious prognosis. Points which may help in the diagnosis are the age of the patient, for if he is of advanced age aortic sclerosis becomes the likely diagnosis; and, secondly, symptoms of reduced left ventricular output and left ventricular strain, which point to aortic stenosis. (*Annotation, Brit. M. J.*, **1**: 777, 1955).

Single Seizure

THOMAS, M. H. (*J.A.M.A.*, **169**: 457, 1959) from the Dr. W. H. Groves Lather Day Saints Hospital, Salt Lake City, in commenting on the study and management of the single seizure writes:

It is impossible to tell whether a single convulsive seizure occurring in a given patient is destined to be his only seizure or whether it will prove to have been the first of a series. A study is made of 48 single or first seizures in patients who ranged in age from 2 to 66 years in an effort to identify factors that might have prognostic value. Of the 48, 13 had subsequent attacks. Thus, a single seizure should not be taken lightly, and an aggressive programme of neurological and electroencephalographic diagnosis is called for. In some instances the diagnosis clearly calls for, medical or surgical treatment, but in general the 27 per cent likelihood that there will be at least one more seizure justifies anticonvulsant medication. If the patient is kept free from seizures for two years, it may be safe to carry out a gradual termination of the medication.

Chlormerodrin in Congestive Heart Failure

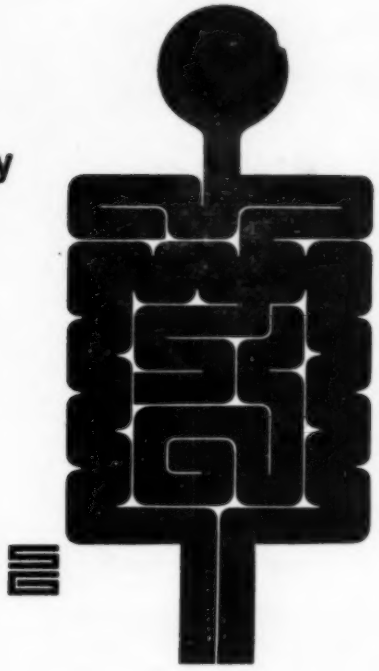
LEFF, W. A. AND NUSSBAUM, H. E. (*Brit. M. J.*, **1**: 883, 1959) from the Cardiac Service, Hospital of St. Barnabas and for Women and Children, Newark, N. J. in giving a report of a four year study on the clinical effectiveness and absence of toxicity of chlormerodrin in congestive heart failure observe:

Forty-eight clinic patients in chronic congestive heart failure were maintained in a state of cardiac compensation with the oral organomercurial chlormerodrin (neohydrin) over a four-year period. All patients received maintenance digitalis and were advised to stay on a salt-free diet.

An additional five patients treated during the four-year period had gastro-intestinal disturbances manifested by nausea, vomiting, and diarrhoea. The patients were withdrawn from the study because of their intolerance to the drug.

Of the 48 patients, 39 had previously received parenteral meralluride (mercuhydrin) from six months to ten years prior to initiation of treatment with the oral drug; the other nine had never received parenteral organomercurials prior to treatment with chlormerodrin.

Geigy



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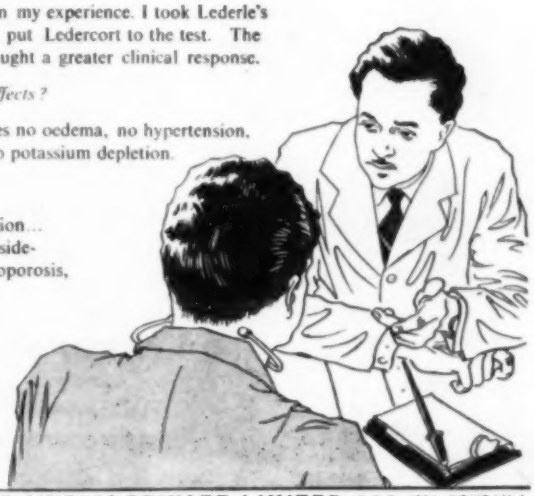

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Of the eight deaths in the series, none of which were related to toxicity of the diuretic, three came to necropsy. There was no gross microscopial evidence of renal damage due to mercury.

Tissue analysis for mercury revealed a small mercurial content in the kidneys, and infinitesimal amounts in heart muscle, liver, spleen, and large bowel.

Chlormerodrin showed no evidence of renal toxicity over a four-year period. Most so-called "toxic reactions" to organomercurial diuretic therapy can be eliminated by proper control of therapy in sensitive patients.

Preventing Recurrences of Rheumatic Fever

The incidence of acute rheumatic fever is declining, partly, perhaps, because of improved nutrition and better social conditions, partly because of the wise and prevalent practice of treating streptococcal tonsillitis with an antibiotic, and partly for unknown reasons, but acute rheumatic fever still occurs, and still causes serious permanent crippling heart disease. Although we cannot say exactly how much damage a recurrence of rheumatic fever does to an already damaged heart, it is clearly desirable to prevent recurrences if we can. If there is no evidence of carditis after an attack of rheumatic fever, it is equally or even more desirable to prevent damage by another attack. The best drug to give is penicillin (Bywaters, E. G. L. and Thomas, G. T.—*Brit. M. J.*, **2**: 350, 1958).

The usual form of penicillin used for prophylaxis consists of tablets of penicillin G, one tablet of 200,000 units given twice a day. This costs about 2*s.* 6*d.* a week, but the value of the prevention of rheumatic fever can hardly be expressed in terms of cash. There are two difficulties. The tablets deteriorate unless they are kept in an airtight tin, and not all patients can be relied on to take them. As a result various workers have advocated a single intramuscular injection of 1,200,000 units of benzathine penicillin G each month. Injections, however, are not popular with children, and there is a higher incidence of allergic reactions than with oral penicillin. Chancey and colleagues (*Am. J. M. Sc.*, **229**: 165, 1955) found a reaction rate of 5·2 per cent with intramuscular benzathine penicillin G, as compared with 1·1 per cent with the oral method.

The duration of continuous prophylaxis to be aimed at is a matter of opinion. The American Heart Association (*Circulation*, **11**: 317, 1955) recommended "continuous prophylactic penicillin throughout life, or until new knowledge makes this recommendation invalid." The Royal College of Physicians Committee (Rheumatic Fever Committee, 1957, London) recommended that it should be given "for five years, or till leaving school, whichever is the longer", Bywaters and Thomas (*loc. cit.*) agree with this advice.

While the usual relapse rate found with continuous prophylactic penicillin is about 4 per cent, the rate without such treatment is likely to be anything from 40 to 70 per cent. In this connection a recent paper by Hitchens (*Ann. Rheumat. Dis.*, **17**: 293, 1958) contains much interesting information. Hitchens describes the incidence of recurrences of rheumatic fever in 470 Cardiff schoolchildren attending a school rheumatic clinic. They all had rheumatic fever with carditis, and came under observation between 1931 and 1950, before penicillin prophylaxis was used. Recurrent episodes occurred in about a third during the period of observation. There were recurrences in 47 per cent of those under supervision from the onset of rheumatic fever to school-leaving age, and in 54 per cent of those who were observed continuously for three years or more after the onset. Hitchens found a significant incidence of recurrences in the summer months, indicating that penicillin must be given in summer and winter. An important finding was that there was a risk of the first recurrence as long as seven years after the initial attack; the risk diminished only slightly after the first four years. Among children observed from the onset to school-leaving age, cardiac abnormalities were found at the end of the period of observation in 74 per cent of those who had recurrences and 61 per cent of those who did not. It would be interesting to know the corresponding incidence of carditis in those who initially had no evidence of carditis and who had penicillin prophylaxis, and the incidence in a similar group who had no penicillin, but there was no information on this point. Hitchens's paper supplies further good evidence that when a child has had rheumatic fever continuous penicillin prophylaxis should be given for many years to prevent recurrences (*Leading Article, Brit. M. J.*, **1**: 351, 1959).

Upper Arm Block Anaesthesia in Children with Fractures

Clayton, M. L. and Turner, D. A. (*J.A.M.A.*, **169**: 327, 1959) of Denver write that brachial block anaesthesia by the axillary route, as described by Accardo and Adriani, is an excellent, safe method of regional anaesthesia. The nerve supply of the arm is blocked without the possibility of thoracic complications. Thoracic complications from supraclavicular blocks are quite frequent and at times serious.

This block has been especially useful in the treatment of recent fractures in children, as one may assume there is food in the child's stomach and therefore a risk of aspiration if general anaesthesia is used. The resulting sympathetic block is also of value in certain cases, e.g., supracondylar fractures of the humerus.

The technique is simple. Children have not objected to the technical use of the needle and have co-operated well. In 80 consecutive cases there has been only one failure. It is interesting to note that, of these cases, twenty-seven occurred during the months of April and May, 1958. This indicates the growing interest in this type of block anaesthesia in the locality, although the method has been in use since 1954.

CURRENT TOPIC

MEDICINE IN CHINA

S. C. SEN, B.SC., M.B., D.M.R.E.

Secretary for Asia, World Medical Association and Ex-President, Indian Medical Association New Delhi

I was in China for three weeks from April 11 to May 3, 1959, at the invitation of the Chinese Medical Association. During this short period, I was able to visit six cities, namely, Canton, Wuhan, Nanking, Shanghai, Hang-Chaow and Peking, and the areas round about these cities.

During this time, apart from seeing the usual sights seen by tourists, I was able to visit hospitals, medical colleges, pharmaceutical institutions, schools, communes, factories, department stores, etc. I had discussions with the office-bearers of the Chinese Medical Associations at the various centres I visited, and finally with the office-bearers of the Chinese Academy of Medical Sciences and of the Chinese Medical Association Headquarters at Peking. Practically most of the discussions and the information I was able to gather had to be carried through interpreters. I hope, however, that the information I have been able to collect is substantially correct and I give them below seriatum :

1. At present there are about 1,00,000 doctors—products of modern medical colleges—and 4,00,000 traditional Chinese physicians looking after the needs of 650 million or more of the Chinese people.

2. The Chinese Medical Association has a membership of about 20,000 on a voluntary basis. The annual subscription is two Yuans. According to official exchange rate it will be about Rs. 4/- but according to the buying power, it will be equivalent to about Rs. 2/-. The Chinese Medical Association publishes about 16 medical journals of which one is in English. Specialist organisations are incorporated in the Chinese Medical Association.

All the deficits and other necessary expenses are met by the Government. I was told that there is no conflict between the Chinese Medical Association and the Ministry of Health, and the Chinese Medical Association is in fact an agency of the Health Ministry carrying on the policy and work of the Ministry of Health in various ways. During all the discussions I had with the doctors I did not find two opinions on any subject. All along I found only one opinion expressed by everybody.

3. Medical education in China is of three types :

(i) Modern medical colleges provide five-year courses to students who have finished the senior middle schools. There are 38 such colleges and between them they admit about 20,000 students a year. Some colleges admit as many as 700 or 800 students every year. Forty per cent of the students are women. As classrooms are not big enough, the students are taught in two or three shifts. The course of study includes lectures on traditional Chinese medicine for a period of 300 to 400 hours.

(ii) There are medical schools, probably about 100 in number taking in about 20,000 students a year from junior middle schools. The course of instruction covers a period of two to three years and is a shorter course of modern medicine than the course given in the colleges.

(iii) Colleges of traditional medicine taking students from senior medical schools, started during recent years. They number about 38. These colleges offer a training for three years in traditional medicine, to be followed by training for a period of two to three years in modern basic medical subjects, like anatomy, physiology, pathology, etc.

Post-graduate medical education : There are facilities for post-graduate training in various branches of modern medicine. Apart from this, there is also an arrangement for giving post-graduate training in traditional Chinese medicine for short or long periods to graduates of modern medicine, and to practitioners of traditional medicine.

Cost of education : All education in China is free. For higher education in all branches including medicine, there is selection for every seat available. One out of ten candidates are selected. Seventy to 80 per cent of the students do not have to pay anything at all for education, board or lodging. Twenty to 30 per cent pay only for their food which comes to between 11 and 15 Yuans a month.

4. The reasons for these different kinds of training, as given to me, are as follows :

(a) The reason for large admissions in modern colleges is to produce as soon as possible one doctor for every thousand of the population.

(b) The reason for having medical schools with a shorter course of two to three years is to fill up the gap temporarily. These schools probably will be closed or upgraded as soon as possible.

(c) *Training in traditional medicine* : Quotations given below from *Health Bulletin* of December 3, 1958, and as published in the *Chinese Medical Journal* of February, 1959, Volume 78, No. 2, pages 103-105, will clarify the position : "In 1955 and 1956 following the Party's directive emphasising the study of traditional Chinese medicine by Western-style doctors and closer unity and co-operation between physicians of the two schools."

"In six cities, 2-½ year courses giving systematic theoretical and clinical grounding in traditional medicine were started and some 300 Western-style doctors were enrolled for full-time study of traditional medicine. Now they have joined medical institutes or health departments in various places and are putting into practice both western and traditional methods of treatment."

"Since 1955, short-term and spare-time courses have also been organised, and several thousand Western-style doctors have become familiar with some of the elementary skills of traditional medicine. As a result the quality of their medical work has considerably improved. Some diseases for which Western medicine has no cure can now be treated with good results by traditional methods or by a combination of both traditional and western methods."

"Through the study of traditional Chinese medicine, Western-style doctors have not only acquired new skills but also raised their political consciousness. Some Western-style doctors found it difficult to accept the Party's (Communist) policy; they despised traditional medicine and considered it a step backward and a sheer waste of time to learn it. However, after they started on their study and found its excellent curative effect in their clinical practice, they came to claim it enthusiastically. As a resul: they have gained a deeper understanding of the correctness and farsightedness of the Party's policy."

"In recent years, thirteen medical colleges and hundreds of medical schools of traditiona! Chinese medicine have been established."

"In recent years, an increasingly important role has been played by doctors of the traditional school. They now occupy administrative posts in health department, are invited for consultations, and work in special departments of traditional Chinese medicine in medical colleges and hospitals. In ad.lition, since 1955, over 300 hospitals and a large number of clinics of traditional Chinese medicine have been established.

"The traditional methods of treatment are preferred by many patients because they are simple and effective and appropriate to the constitution and habits of Chinese people."

"All these achievements demonstrate how correct the Party's policy is regarding traditional medicine and how it fits in with the interest of the masses of the people. The results so far achieved in systematising this ancient heritage and raising it to a higher level show that the necessary ground work is being prepared for integrating traditional and Western medicine."

5. *Hospitals*: Hospitals in China are of various kinds, namely, hospitals attached to medical colleges, municipal hospitals, district hospitals and smaller hospitals scattered about the rural areas and in factories. All the hospitals have departments of modern and Chinese medicine, practitioners of both systems working in co-operation. Out-patient departments are open from 8 a.m. to 8 p.m., casualties and urgent cases being attended to all through the day and night. Patients have freedom to choose either the department of modern medicine or traditional medicine either as in-patients or out-patients and if and when the response to treatment in either department is not satisfactory, colleagues from other departments may be called in for consultation and treatment switched. Apparently this system is working satisfactorily.

Hospitals are overcrowded and the staff is not always adequate. It was not possible to get the idea of the number of hospital-beds in the country.

6. *Remuneration of physicians*: There is no private practice in the whole of China. Every physician qualified from a modern medical college, or modern medical school or traditional physician is a full-time salaried person. The minimum salary of a physician in China is 40 Yuans a month. Those who qualify from medical colleges get a minimum salary of 60 Yuans a month, and the maximum salary of professors vary from province to province but in no case exceeds 400 Yuans a month.

The salary scale is considered to be adequate as houserents are nominal and the cost of food per month per individual is not more than 15 Yuans a month. Clothing, specially woollen clothing and other necessities are comparatively expensive. Even then I was told that a young man earning 60 Yuans a month can very often save half of his salary if he is a bachelor and can afford to get married, more so as his wife can work outside and earn an extra income unless there is definite reason for her not to do so.

I was told by a professor earning 300 Yuans a month that he could not spend more than 200 Yuans a month on himself, his wife, a grand child and a maid. Hardly anybody possesses a car of his own. These may be provided when necessary by the institutions concerned.

7. *Standard of Medicine in China*

Modern medicine: The standard of modern medicine in China seems to be fairly high though the equipment is not always very up-to-date and the hospitals are not always very modern. The doctors appear to work with devotion and skill. Though there was considerable overcrowding in medical colleges and the staff very inadequate, the teaching was carried on by the senior and the junior staff with great care and attention. The necessary pharmaceutical preparations including antibiotics are made in the country and meet the needs of the people.

Traditional medicine: There are apparently about 4,000 Chinese drugs of herbal, mineral and animal origin. These are compounded according to traditional methods by pharmaceutical concerns or by the pharmacies attached to the hospitals. As already mentioned, research work is being carried on by various institutions to test the efficacy of some of these drugs, particularly to reduce hypertension.

One special feature of traditional medicine is known as *acupuncture*. The philosophy beyond this method of acupuncture is that there are 14 lines or channels or meridians in the human body, with 360 points on them. Sharp steel needles of varying sizes are inserted to various depths on these points and kept in position for 15 minutes to half-an-hour each time. This treatment is repeated daily or more often on alternate days. Different points are treated for different diseases and it is claimed that many conditions respond favourably to this particular method of treatment which is very popular in

China. Along with acupuncture another practice is sometimes used, which is known as *moxibustion*, and this consists of applying the smoke of burning taper containing some special herbs. Acupuncture (and or moxibustion) is claimed to be very useful in the following cases :

1. Deaf-mutism and deafness following certain disease. 2. Infantile paralysis. 3. Facial paralysis. 4. Enuresis. 5. Acute appendicitis (needles are inserted below knee joints. 6. Acute cholecystitis. 7. Acute pain of peptic ulcer. 8. Rheumatism. 9. Bacillary dysentery, etc.

The channels or meridians and points mentioned above have no anatomical or physiological basis, and no scientific explanation is yet forthcoming as to how acupuncture acts.

8. *Public Health* :

(a) Twenty-seven communicable diseases are notifiable on a national scale.

(b) Cholera, rabies, smallpox, relapsing fever and typhoid have been completely wiped out. Against smallpox, vaccination and re-vaccination are still compulsory at the ages of two months, 6, 12, 18 and 50 years of age. Against diphtheria, inoculations are given at six months, three years and seven years. Number of typhoid and para-typhoid cases were less than 1,000 in 1958. Number of cases of leprosy in the whole country is about 3,00,000.

(c) Five parasitic diseases namely, schistosomiasis, malaria, filariasis, kala-azar and ankylostomiasis are claimed to have been almost completely eliminated and there is a great drive to achieve their complete basic eradication by 1959. The two articles under the captions : "All China Conference on Parasitic Diseases" and "Summing up of Mass Technical Experiences with a View to Expediting Eradication of the Five Major Parasitic Diseases" by the Vice-Minister of Public Health, Peoples' Republic of China, published in December 1958 issue of the *Chinese Medical Journal*, Volume 77, No. 6, provide interesting reading material.

Schistosomiasis :

The campaign against this disease was carried on in three different ways : "(1) by preventive and curative measures; by both modern and traditional medicines through 297 prevention and treatment stations in various provinces and cities; (2) by elimination of Oncomelania snails in the mass by burial with earth, burning, scalding and chemicals; (3) by proper storage and control of night-soil, by providing public latrines, permanent or otherwise in residential districts by the roadsides, in the fields, on the wharves and over the water. During the first nine months of 1958, 65·27 million public latrines were newly built or repaired in the whole country. On the average this provided one latrine that meets sanitary requirements for every ten persons." According to this report, schistosomiasis has been basically wiped out in more than half the endemic areas and it is claimed that the day is not far off when schistosomiasis will be basically or completely wiped out from the whole country.

Malaria :

It is claimed that the aim of basically wiping out malaria from the whole country by 1960 is by no means impossible to realise. Filariasis, kala-azar and ankylostomiasis—it is expected, will be completely eradicated by 1960. According to the above-mentioned articles, the main reasons for the splendid achievements are four and are as follows :

"1. The Party in the leadership and the Party Secretaries taking direct command;
2. The Party's mass line;
3. Close co-ordination of anti-parasitic work with production;
4. The integration of traditional Chinese medicine and the Western medicines and combined practice of native and foreign methods."

It is further asserted that from the achievements obtained in recent years it is obvious that comple eradication of parasitic diseases is absolutely feasible. For this, "firstly, it is necessary to determine and carry out the absolute leadership of the Communist Party in the field of science, correctly understand the relationship between politics and professional work and so forth. Secondly, scientific researches must be linked with reality, with the mass line, with experiments and with mass movements. Thirdly, scientific research must be based on the principle of 'all for the health of six million people'. Fourthly, in the work of scientific researches it is necessary to promote the Communist Party's spirit of co-operating on a wide scale and to do away with the wrong idea of working alone on the basis of individualism and personal inclination."

General Impressions on China

1. Hard work seems to be the key-note, both by men and women, eight hours a day, for six days in the week There are no strikes or go-slow movements.

2. There does not seem to be two opinions on any subject. There is great deal of optimism and determination to go ahead with the plans formulated by the Party.

3. There are no beggars and no cases of starvation.

4. There seems to be no corruption and no room for corruption.

5. There seems to be progress in all directions, e.g., building activities, construction, new factories of various types; existing roads being widened, new roads being completed, new housing projects being completed.

6. In spite of the above mentioned improvements, standard of living of the people seems to be low as compared with the standards of living in Europe and America. I was told, however, that the standard of living is improving steadily and people are hopeful about further progress in this direction.

My report on medicine in China would be incomplete, if I do not express my appreciation and thanks to the many colleagues in China who were so kind and helpful to me and who were responsible in making my short trip pleasant, comfortable and instructive.

NOTES AND NEWS

Course in Postgraduate Gastroenterology

The American College of Gastroenterology announces that its Annual Course in Postgraduate Gastroenterology will be given at The Biltmore in Los Angeles, Calif., on 24, 25, 26 September, 1959. The faculty for the Course will be drawn from the medical schools in and around Los Angeles. The subject matter to be covered in the Course, from a medical as well as surgical view point, will be essentially, the advances in diagnosis and treatment of gastro-intestinal diseases and a comprehensive discussion of diseases of the mouth, oesophagus, stomach, pancreas, spleen, liver and gall-bladder, colon and rectum. There will be a clinical session at the College of Medical Evangelists and this year, in addition to individual papers, there will be several panel discussions of interest.

Further information may be had from the American College of Gastroenterology, 33 West 60th Street, New York 23, N.Y.

International College of Surgeons

The 24th annual congress of the North American Federation, International College of Surgeons, will be held in the Palmer House, Chicago, September 13-17.

Dr. Karl A. Meyer of Chicago and Dr. W. Wayne Babcock of Philadelphia have been named honorary chairmen of the congress, Dr. Alexander Brunschwig of New York has been chosen general chairman and Dr. Peter A. Rosi of Chicago, chairman of the programme committee.

Surgical specialties to be represented are : colo-proctologic, neurologic, obstetric and gynaecologic, ophthalmologic, otorhinolaryngologic, orthopaedic, plastic and reconstruction, trauma and rehabilitation, and urologic. There also will be surgical motion pictures, reports on advances in military medicine, and a surgical nurses' programme.

Surgeons desiring to present papers should write to Dr. Peter A. Rosi, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

World Population and Longevity in Different Parts of the World

The statistics published in the U. N. Demographic Year Book, 1958 said that the world's population was growing at the rate of 45 million a year or 85 people a minute. The highest birthrate was recorded in Africa.

People born in Norway could expect the longest life —75 years for women and 71 for men. India still had the shortest expectancy—32 years—for both sexes. More than half the countries still expected males to live less than 50 years.

At the latest estimate, the total population of the world was 2,400 million—with more than half concentrated in Peoples China (640 million), India (400 million), the Soviet Union (200 million) and the U.S.A. (170 million).

By 2000 A.D. Asia would probably account for 60 per cent of the world total. Only 14 per cent lived in West Europe.

The 552 page document adds that married people live longer than single, marriages are lasting longer, and widowhood and orphanhood are "diminishing as a social problem".

Committee to Review Progress in Health

The Government of India have constituted a committee to review the progress in public health since the publication of the Health Survey and Development Committee (Bhore Committee) Report in 1946.

The findings of the Committee will help in the formulation of the future health programmes for the Third and subsequent Five-Year Plan periods.

Dr. A. Lakshmanaswami Mudaliar, Vice-Chancellor of the Madras University, is the Chairman of the Committee.

Under the terms of reference, the Committee will assess the development in the field of medical relief and public health since the Bhore Committee's report, review the progress of health projects under the First and Second Five-Year Plans and recommend the lines on which the future plans of health development in the country should be formulated.

Health Education Bureaux

The Government of India has approved the scheme for the establishment of Health Education Bureaux in the States with Central assistance during the Second Five-Year Plan period. Ten health education bureaux will be started during this period. Of these about five will be set up in 1959-60 and the rest in 1960-61.

To encourage the State Governments to open the bureaux, the Government of India will provide financial aid. The expenditure of Rs. 99,540 recurring and Rs. 10,000 non-recurring on the bureaux will be shared by the Union Government and the State Governments participating in the scheme. Equipment and supplies to be provided by the UNICEF are expected to cost Rs. 87,000.

The decision to establish the bureaux is in accordance with the recommendation of the Central Council of Health. The objective of the scheme is to inspire people to achieve health through their own efforts and actions, to stimulate them to utilise fully the medical and public health facilities provided under the Plan, and to help them change unhealthy attitudes and practices.

The functions of the bureaux will be to plan, organise and direct State-wise health education activities as an integral part of public health programmes. The bureaux will give advice on health education method and media to official and non-official agencies, assist in the organisation and conducting of seminars, etc., group teaching, training of personnel production and distribution of health education, aids and technical equipment, interpretation of special health programmes, services and policies to the people, dissemination of scientific information about health and maintenance of an up-to-date

library service and co-ordination of all health education activities within the State.

Durgapur to Have Two Big Hospitals

Durgapur will have two big hospitals with a total capacity of 450 beds soon. These will be under the management of the Durgapur Industries Board and the Durgapur Steel Project, respectively.

The Industries Board proposed to set up a 200-bed hospital near Muchipara on G. T. Road. The 250-bed hospital, to be constructed by the steel plant authorities, will be located inside the steel town. This hospital will have separate wings for T.B. and infectious diseases.

In addition to the existing field medical unit in the steel project area, where 300 patients are examined every day, another unit will be opened shortly.

At present there are two small hospitals at the coke oven colony and steel township area.

Interim arrangements have been completed to increase the number of beds in the coke oven hospital from 12 to 38. Twenty more beds will also be added in the existing strength of 60 at the steel project hospital.

100-Bed Tuberculosis Hospital

Dr. Jivraj Mehta, Bombay's Finance Minister, declared open a 100-bed tuberculosis hospital in the village of Choki, about six miles from Junagadh in Sorath District.

The hospital, which is the second of its kind in this region, is housed in a palatial building built by the former ruler of Junagadh State and will start functioning with a donation of Rs. 5 lakhs received from the Maharishi Dayanand Trust. A sum of Rs. 2 lakhs has already been spent for equipment and other capital expenditure on the hospital.

Dr. Chotubhai Patel, Director of the Hospital, said that the annual recurring expenditure on the hospital would be Rs. 1,80,000. A sum of Rs. 1,40,000 had already been collected by popular donations for the hospital and it was expected that total collections would reach the target of Rs. 2 lakhs by the end of this month. It was proposed to provide another 50 beds in the hospital shortly.

New Hospital at Navsari

The Union Minister for Finance declared open on the 24th May last the Mafatlal Gagalbhai General Hospital, built at a cost of Rs. 13 lakhs and named after the donor who donated Rs. 3½ lakhs.

Speaking on the occasion, Mr. Desai called upon philanthropists all over the country to emulate the example of the Mafatlal family and to set apart a part of their earnings for charitable purposes intended to alleviate human sufferings. Such donations, he said, was a special feature of Indian culture which had now become dormant and needed to be revived. The Government had spent Rs. 10 lakhs on the construction of the hospital which would have 52 beds. He gave details of the medical facilities available in Surat District and said that by the end of the Second Plan period, half the rural population of the State would come under the Public Rural Health Centres Scheme which would provide not only curative but preventive facilities against disease.

Asansol to Have Its Hospital

The West Bengal Government has approved the proposal for a large well-equipped hospital conforming to the standard of a district hospital for Asansol (West Bengal).

Estimated to cost about Rs. 24 lakhs, this hospital with 130 beds will be located near Asansol. About 100 bighas of land has been acquired by the State Government for this purpose, so that further expansion of the hospital may not be hampered later.

Symposium on "Amoebiasis and other Infections in India and Their Therapy"

A symposium on "Amoebiasis and other intestinal infections in India and their therapy" will be held in Central Drug Research Institute, Lucknow, in November 1959. The nature and scope of the symposium are :

I. INCIDENCE AND EPIDEMIOLOGICAL ASPECTS—(i) Morphology, (ii) Diagnostic procedures, (iii) Influence of other helminthic, protozoal and bacterial associates, (iv) Host-parasite relationship.

II. EXPERIMENTAL AMOEBIASIS AND SCREENING—(i) *In vitro* techniques, (ii) *In vivo* tests in guinea-pigs, mice and monkeys, (iii) Culture media and cholesterol needs, (iv) Nutritional requirement and metabolic pattern.

III. CHEMOTHERAPY—(i) Chemical constitution and biological activity, (ii) Plant products, (iii) Synthetic drugs, (iv) Antibiotics.

IV. CLINICAL—(i) Intestinal amoebiasis and giardiasis, (ii) Systemic amoebiasis, and (iii) Complications.

An abstract of the paper (in duplicate) not exceeding 250 words should be sent to the Director of the Institute *before 15th September, 1959* and the full paper (in duplicate), by *15th October, 1959*.

Upgraded Department of History of Medicine

This department which was originally opened in the Andhra Medical College, Visakhapatnam, and now transferred to the city of Hyderabad and attached to the Osmania Medical College, Hyderabad, has been upgraded with the aid of the Union Government as an All-India Centre for post-graduate study, teaching and research, and is now accommodated in Nizam Bagh, Salar Jung Building compound, Hyderabad (A.P.). Dr. D. V. Subba Reddy has been appointed as Director and Professor of the department.

The department is being organised under the following sections : (1) Library, (2) Museum, (3) Original Records and Documents and Photostats, (4) Art Section —Collection or preparation of materials to illustrate History of Medicine in India, and (5) Photographic Department.

Raptakos Medical Research Board Award of Fellowships

The Raptakos Medical Research Board will consider applications for the award of Fellowships for research work on medical and allied subejcts in recognised institutions situated in the Union of India.

The awards normally consist of Rs. 3,000/- per year for a Fellowship and Rs. 750/- per year towards special equipment or chemicals approved by the Board.

Applicants should have an M.B.B.S. or M.Sc. degree or its equivalent or not less than two years' experience in research work after B.Sc. The awards are made annually and may be renewed on the basis of satisfactory progress.

Further information may be had from the Secretary and Treasurer, Raptakos Medical Research Board, Dr. Annie Besant Road, Worli, Bombay, before September 30, 1959.

Dr. S. N. Bhansali Charitable Trust Prize

The Bombay Obstetric and Gynaecological Society invites Thesis or Essay on "Any Original Work on Human Sterility" for the award of Dr. S. N. Bhansali Charitable Trust Prize for the year 1958. The value of the prize is about Rs. 500/-. The prize competition is open to all Registered Medical Graduates of any Statutory Indian University.

Further details and rules governing the award of the Prize may be had from the Hon. Secretary, Bombay Obstetric and Gynaecological Society, Purandare Griha, Chowpatty Sea Face, Bombay 7.

Ranbaxy Laboratories

The Foundation Stone of Ranbaxy Laboratories was laid by Sri S. K. Patil, Cabinet Minister, Government of India, on Wednesday, 27th May 1959, at Okhla, near Delhi.

Ranbaxy Laboratories will manufacture antibiotics, chemotherapeutics, cortisone derivatives, vitamins, etc., in co-operation with Messrs. Lepetit S.p.A.

A New Antibiotic for Ringworm

It was in 1955, two research teams, the Glaxo unit and an ICI team began investigating the possibilities of the antibiotic "griseofulvin", if taken systemically. This antibiotic was previously developed by Glaxo for use in horticulture. The experiment was held to be successful and has been found effective in ringworm and other fungus infections. The drug is at present in use in England. It is taken by mouth.

Guntur Medical College

The Andhra Pradesh Government have decided to start the Pre-professional Course in Medicine in the Guntur Medical College this academic year. It was started last year in the Kurnool Medical College. It will be opened in the Waltair Medical College in 1960-61.

Classified Group Headings in Madras Telephone Directory

The Madras Medical Council is of opinion that the additional insertion of a doctor's name in the classified list of the Telephone Directory on extra payment, amounts to advertisement and therefore it is against medical ethics and hence requests the Director-General of Posts and Telegraphs to resume the old custom of printing the doctor's name in the general alphabetical list or classify all doctors without any additional payment.

(*N.B.*—The same ethical code is also being observed by the West Bengal Medical Council—Ed., *J. Indian M. A.*).

Madras Medical Council

On the information received from the Chief Ordnance Officer, Vehicle Depot, Avadi, that Dr. G. Manickam, L.M.P. (Burma), 1922, 33, Arasappa Mudali Street, Purasawalkam, Madras, has issued a false medical certificate, the Madras Medical Council held an enquiry on 23rd March 1959 and found him guilty of infamous conduct in a professional respect and directed that the name of Dr. Manickam, Gnanadikkam, L.M.P. (Burma), 1922, holder of Registration Certificate No. 4084 be erased for a period of one month.

The Madras Medical Council at the meeting held on 23rd March 1959 decided to remove the name of Chandrasekharan registered with Number 12630, dated 13th April 1955, under Section 16 (1) of the Madras Medical Registration Act as it has been found that he had produced certain false documents and got himself registered with the West Bengal Medical Council and on the strength of which he was registered in the Madras Medical Registrar.

CORRESPONDENCE

The Editor is not responsible for the views expressed by correspondents

Parenteral Diethylcarbamazine (Unicarbazan) in the Treatment of Tropical Eosinophilia

We have read with interest the article of Misra *et al* on diethylcarbamazine in tropical eosinophilia which appeared in your issue of March 16, 1959, p. 232 and especially their experience with parenteral diethylcarbamazine (Unicarbazan) in the treatment of 8 cases of tropical eosinophilia. The use of diethylcarbamazine in the treatment of tropical eosinophilia both by the oral as well as parenteral route was first advocated on the basis of work done in our department and hence we should like to mention a few observed results in connection with this line of therapy. There are two important points worth considering in the evaluation of a drug, viz., (1) Effectiveness of therapy and (2) side-reactions of the drug.

Parenteral therapy with 'Unicarbazan' has been used by many workers with success in about 80 to 90 per cent of cases. We (Shah and Sheth, 1958a and 1958b) have treated 60 cases with two failures. Viswanathan (1958) and Viswanathan and Krishnamoorthy (1958) have reported its use in 80 cases with good results in 87 per cent of cases. Parekh *et al* (1958) reported results in 42 cases with only 4 failures. Patwari (1958) reported 58 cases with good response in 54 cases and failure in 4 cases. Kapadia (personal communication) had tried it in 22 cases with uniformly good results. Patel (personal communication) used it in 20 cases with no failures. Clinical symptoms are relieved immediately. Fall in eosinophil count occurs slowly and the count reaches normal level in about 10 to 15 days. There is no linear relationship between improvement of symptoms and fall in eosinophil counts. As a matter of fact during the first one or two days aggravation of symptoms and even a rise in absolute eosinophil count have been noted both after oral and parenteral diethylcarbamazine. In most cases eosinophil count becomes normal in two weeks' time. If, in any case at the end of 3 weeks the absolute eosinophil count remains high, a further single injection of 6 mg./kg. of the drug brings down the eosinophil count to normal. This fact must be kept in mind when evaluation of treatment is done on the basis of fall in eosinophil counts.

The best results are obtained by giving 6 to 8 mg./kg. of the drug intramuscularly in two doses on alternate days. Disturbing side-reactions like nausea, vomiting, giddiness and drowsiness were noted in the earlier series, when a single injection of 800 to 1250 mg. was used. But after the introduction of 2 dose therapy of 6-8 mg./kg. each, and addition of antihistaminic to the parenteral preparation, these reactions have been practically eliminated. If proper precautions are taken to inject the drug intramuscularly and in proper doses in relation to body weight, the chances of side reactions occurring are minimal.

'Unicarbazan' has been repeatedly injected by us in conscious dogs both intramuscularly and intravenously in doses of 50 mg./kg. without any serious side-reactions. In dogs under anaesthesia, a dose of 30 to 50 mg./kg. given intravenously produces only transitory fall in B.P. to the extent of 10 to 15 mm. of Hg lasting for about 2 to 30 seconds. We have measured B.P. in many patients before and after injection of 'Unicarbazan' and found no significant change. In experimental animals, diethylcarbamazine has been shown to have low toxicity. The intraperitoneal LD_{50} in mice is 248 mg./kg. and in rats 435 mg./kg. (Harned *et al*, 1948). About the fate and excretion of the drug little is known. It is excreted by kidneys in 2 to 3 days and about 30 per cent of an ingested dose is recovered in the urine. The fate of the remainder is not known (Goodman and Gillman, 1955). Thus it appears that after parenteral therapy of diethylcarbamazine, the blood concentration of the drug may remain for 2 to 3 days before being excreted.

For correct therapeutic evaluation of a drug, a large series of cases and experience gained by different workers over a long period, can only help us to accept or reject a particular treatment. In a clinical condition like tropical eosinophilia where the aetiology is not definite and rise in eosinophil count may be due to diverse causes, the treatment at best is empirical and a few cases of eosinophilia due to different aetiology may not respond to the usual treatment. Possibility of idiosyncrasy to the drug or an allergic reaction occurring especially in a condition like tropical eosinophilia, which itself is probably an allergic syndrome, must be kept in mind.

We will appreciate, if you will publish this letter in the correspondence columns of your journal. We are etc.

Department of Pharmacology, Seth G. S. Medical College Parel, Bombay.

U. K. Sheth
V. R. Shah

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* * *

Sir,—Thanks for referring to me the letter of Drs. Shah and Sheth.

I agree with Drs. Shah and Sheth that the two important criteria are (a) effectiveness and (b) relative frequency of side reactions.

They admit that "during the first one or two days, aggravation of symptoms and even a rise in absolute eosinophil count have been noted both after oral and parenteral diethylcarbamazine."

My colleagues Dr. Kedar Nath and I find, however, that reactions are much more severe with parenteral therapy, while they are minimal with oral therapy, while, with the latter route, relief starts within 2 or 3 days and is complete with 8 or 10 days in the vast majority of cases.

If I ever had tropical pulmonary eosinophilia (which (God forbod!) I would much rather be relieved in 6 to 10 days' time without aggravation of symptoms rather than in 4 or 5 days' time with two aggravations (following each of the two injections advised). I am etc.

K. G. Medical College
Lucknow.

S. S. Misra
Professor of Clinical Medicine

REVIEWS

Hand-book on Smallpox Vaccination : Principle and Practice—By J. Das Gupta, M.B., D.P.H., D.T.M. Published by the author from the Vaccine Institute, Calcutta Corporation. Pp. 50. Price not mentioned.

This is a small booklet compiled from notes prepared by the author for the purpose of demonstration of the methods of production and standardisation of smallpox calf lymph vaccine to the medical and public health students. The author has been associated with the manufacture of smallpox vaccine for over two decades and his experience in this field has been fairly represented within the short compass of the booklet.

The work contains four chapters and each chapter though short, contains adequate information written in a clear manner free from ambiguity, suitable for students and laboratory workers alike. There are some printing mistakes for which corrigenda have been appended.

The booklet will prove of particular value to the under- and post-graduate medical and public health students, medical practitioners as well as others who are interested in the production and standardisation of smallpox vaccine.

Surgery of the Stomach and Duodenum –By Claude E. Welch, Year Book Publishers, Inc., U.S.A., 8¼"×5½", pp. 405, price $9.75.

The book on surgery of the stomach and duodenum has become a dictionary for all types of gastric and duodenal operations. The descriptions and the line drawings are fairly explicit and critical. The arrangement of the text and the figures face to face has made the book a very pleasant study.

It is certainly a fine reference work on the subject.

Surgery of the Colon –By E. S. R. Huges. E. & S. Livingstone Ltd., London, 9½"×6½", pp. VIII plus 416, price 63s. net.

This book has become an excellent monograph on surgical diseases of the colon and their treatment. Mr. Hughes' personal experience is very vast in the subject. This and the practical outlook with which he has written this book has made it a treasure. This monograph has become an indispensable companion to all postgraduate students and young surgeons. The chapter on ulcerative colitis is really impressive. The illustrations and line drawings are very clear and explanatory.

A Practical Handbook of Psychiatry for Students and Nurses—By L. Minaki, M.D., F.R.C.P., D.P.M., 4th edition, William Heinemann Medical Books Ltd., London, 4½"×6½", pp. 152.

This handbook is really practical, as it is readably small in size. The author, a veteran teacher, has been able to help the learner students and nurses in their orientation of clinical psychiatry. The chapter on nursing and general management is full of useful hints that are rare in a text-book. The treatment section of the book deals with the use of drugs and procedures of special forms of treatment in such detail and clearness as to make the students and nurses treasure the book.

The Mast Cells—By J. F. Riley. E. & S. Livingstone Ltd., 1959, pp. X/182, size 6¼"×9¼", price 30s. net.

This is a monograph devoted entirely to detailing the prevailing knowledge on the structure and functions of the mast cells. The author describes the discovery of the mast cells by Ehrlich and later phases of development of interest in these cells. The first two phases are described in the first part of the monograph consisting entirely of reviews of literature. Ehrlich's discovery and the observations following in its immediate wake formed the peak of the first phase, while the discovery that the mast cell is the site of formation and storage of heparin constituted the second phase of interest. The third phase originated with the observation that the mast cell is not only rich in heparin but also equally rich in histamine. The second part of the book describes the experiments and observations concerned with the development of the third phase. An extensive bibliography at the end of the monograph enhances its utility to those workers who are not only interested in the mast cell but are also keen to contribute further to the advancement of knowledge.

Klinische Enzymologie : Die Fermente in der Pathogenese, Diagnostik und Therapie—Von Priv.-Doz. Dr. R. Abderhalden, Basle. 1958. VIII, 390 Seiten, 34 Abbildungen, Gr.-8°, Ganzleinen DM 48.

Clinical Enzymology, The Ferments in Pathogenesis, Diagnosis and Therapy (in German)—By R. Abderhalden. 1938, pp. 390, 34 illustr.; Georg Thieme, DM 48.

The advances in our knowledge of enzymes have already resulted in many different practical applications. Whereas a few years ago enzymology was a preserve of highly specialised biochemists, nowadays the clinician gets increasingly interested in this subject. R. Abderhalden's book is stated to be the first in the German language to give a systematic survey of the significance of enzymes in medical practice, a subject which the author considers as presenting the most fascinating and promising tasks for clinical research.

A short section on the principles of enzymology is followed by 130 pages on enzyme pathology and diagnosis, giving for each of some 30 ferments their physiological and clinical significance as well as methods of estimation. Then follows a chapter on congenital enzymopathies, arranged according to proteins, carbohydrate, lipid and purine metabolism, hormone and haemoglobin balance, and some rare metabolic disturbances caused by congenital enzyme anomalies. The last 110 pages are devoted to the therapeutic applications of enzymes such as hyaluronidase, thrombin, trypsin, streptokinase and many others, with a special section dealing with the particularly interesting therapeutic uses of antivitamins and other inhibitors like those of carboanhydrases, of thyroxin synthesis, of coenzyme A and

others. A truly overwhelming number of references cover a vast amount of German, English, French and Italian literature, filling 46 pages in small print. The index seems equally faultless and complete. Although some English books covering the same subject have been recently published, a translation of this excellent and authoritative treatise on a subject of such quickly growing importance would be most welcome.

Ergebnisse der gesamten Tuberkulose- und Lungenforschung—Herausgegeben von St. Engel, Londonn, L. Heilmeyer, Freiburg/ Br., J. Hein, Tönsbeide, E. Uehlinger, Zürich. Band XIV—Bearbeitet von L. Adelberger, J. B. Armstrong, F. Blittersdorf, H.-J. Clemens, L. Cudkowicz, St. Engel, D. Esch, O. Fresen, O. Görgényi-Göttche, F. Grosse-Brockhoff, D. Kassay, H. W. Kirchhoff, G. Könn, W. Schindler, J. Schoenmackers, G. Töndury, H. Vieten, E. Weibel, R. Willnow. 1958. VIII, 736 Seiten, 283 Abbildungen in 462 Einzeldarstellungen, Lex.-8°, (Georg Thieme Verlag, Stuttgart), Ganzleinen DM 144.

Results of the Entire Tuberculosis and Pulmonary Research: Vol. XIV (in German).

It does not happen every day that one has the pleasure and responsibility to review a book of such high merit and perfection. The editors selected as the main subject for this volume of the famous "Ergebnisse" the various aspects of pulmonary vascular diseases which are considered from every conceivable point of view; the contributions are so co-ordinated as to result in a unified picture of the problem of pulmonary circulation, that are gaining steadily in importance. The connecting link with tuberculosis, which previously was the main theme of this (almost) annual publication and lost some significance due to chemotherapy and chest surgery, is a chapter on tuberculosis and circulation. Much light on a controversial subject has been shed in the chapter by Adelberger on results of resection as compared with collapse-therapy in pulmonary tuberculosis. Of infantile pneumopathies one finds sections on atelectasis; on clinic, radiology and differential diagnosis of the mediastinum, and an investigation of tuberculous infections transmitted by teaching and nursing personnel. Almost 50 pages on the morphology of Boeck's sarcoid (13 illustr.), and 40 devoted to the significance of acid mucopolysaccharides (19 illustr.) conclude this impressive volume. One does not know what to admire most, the selection of the contributors and the excellence of their co-operation, although they belong to various countries, the mastery of their subjects, the wealth of references to literature attached to many chapters, or the outstanding beauty of the large number of illustrations, which enhance the value of the text on almost every page.

Of all the innumerable year-books, progress volumes, advances, etc., in English language, very few attain a similar thoroughness in dealing with such a variety of subjects or an equal standard of production. An English translation would be most desirable as it would be of the greatest benefit to anatomists, pathologists, chest-physicians and -surgeons, paediatricians and radiologists.

OBITUARY

Dr. I. G. K. Menon

Dr. I. G. K. Menon was born on 27th March, 1907.

After a successful career in Madras Medical College he started general practice at Fort Cochin, Malabar, where he stayed for eleven years in course of which he won the admiration, respect, affection and confidence of all his patients by intelligent and painstaking methods of diagnosis and treatment. Later, he joined Pasteur Institute of Southern India, Coonoor, on 27th April, 1943 as Medical Assistant. He rose to the position of Deputy Director of the Institute, which he occupied till his death on 30-5-59. At Pasteur Institute he got himself interested in a variety of subjects like Tropical Eosinophilia, Intestinal Fuso-spirochaetosis, Coagulation of Blood, Action of Heparin on Venoms and Influenza. He was awarded the Government of India Travel Fellowship in 1948-49 for special training in influenza in London, in which subject he made notable contributions. He was the Observer, Government of India Influenza Centre in Coonoor ever since its inception in 1950. In recognition of his work, he was nominated a member of W.H.O. Expert Committee on Influenza and Respiratory Virus Diseases and attended the meeting held at Stockholm in July, 1958 besides representing India at the Seventh International Congress of Microbiology held there the same year. He was Chairman of symposia on influenza held (i) under the auspices of I.M.A. in 1957 at Bangalore and (ii) as a part of the Golden Jubilee Celebrations of Haffkine Institute, Bombay in 1959.

Dr. I. G. K. Menon.

A very active member of Indian Medical Association, he was Vice-President of the Nilgiri branch, I.M.A., in 1954-55 and President in 1957-58.

In his death the country has lost a worker of outstanding ability, the medical profession a genial, courteous and sincere colleague, and the Indian Medical Association an ardent and conscientious member.

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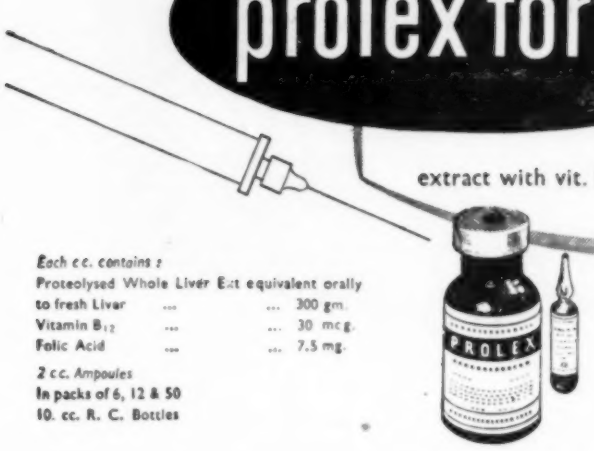

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SUPPLEMENT
Journal of the Indian Medical Association

VOL. 33, No. 2 CALCUTTA JULY 16, 1959

ASSOCIATION NOTES

I.M.A. WORKING COMMITTEE—*Proceedings of the 66th Meeting of the Working Committee of the I.M.A. held at Visakhapatnam on 11th and 12th April, 1959.*

(Subject to confirmation of the next meeting of the Working Committee)

MEMBERS PRESENT—(a) *Ex-Officio Members* : 1. Dr. C. O. Karunakaran (Trivandrum)—President, in the Chair; 2. Dr. D. V. Venkappa (Madras)—Immediate Past President; 3. Dr. P. N. Sinha (Patna)—Senior Vice-President; 4. Dr. Y. P. Vasudevan (Coimbatore)—Vice-President; 5. Dr. A. P. Mittra (New Delhi)—Honorary General Secretary; 6. Dr. Ved Prakash (New Delhi)—Honorary Joint Secretary; 7. Dr. P. C. Bhatla (New Delhi)—Honorary Joint Secretary; 8. Dr. R. C. Goulatia (New Delhi)—Honorary Treasurer; 9. Dr. P. K. Guha (Calcutta)—Editor, Journal of the I.M.A.

(b) *Representatives of the State/Territorial Branches of the I.M.A.* : 10. Dr. K. Rangacharyulu and 11. Dr. D. Rajasekhara Rao, Andhra State Branch; 12. Dr. S. P. Nath, Assam State Branch; 13. Dr. B. P. Tribedi, 14. Dr. Souren Sengupta, 15. Dr. Gourhari Dutt, and 16. Dr. Ajit Roy, Bengal State Branch; 17. Dr. Arvind M. Shah, Bombay Territorial Branch; 18. Dr. N. P. Tripathi, Bihar State Branch; 19. Dr. B. B. Bhatia, Delhi State Branch; 20. Dr. T. V. Sivanandam and 21. Dr. C. Nathamuni Naidu, Madras State Branch; 22. Dr. B. K. Modak and 23. Dr. C. N. Chandrachud, Maharashtra Territorial Branch; 24. Dr. T. A. Dorai Royan, Mysore State Branch; 25. Dr. D. R. N. Sahu, Orissa State Branch; 26. Dr. S. S. Rao, Kerala State Branch; 27. Dr. H. N. Shivapuri, U. P. State Branch.

(c) *Co-opted Members* : 28. Dr. C. S. Thakar (Bombay); 29. Col. Amir Chand (New Delhi); 30. Dr. D. S. Mehra, Hony. Asstt. Secretary (New Delhi); 31. Dr. Chamanlal M. Mehta (Bombay).

(d) *Invited Members* : 32. Dr. A. Bapiraju, Honorary Secretary, Visakhapatnam Branch; 33. Dr. C. K. Prasada Rao (Visakhapatnam); 34 Dr. K. V. Swami (Madras).

Resolution of Condolence :

The following Condolence Resolution was unanimously passed, all members standing and observing silence for one minute :

> "This meeting of the Working Committee of the Indian Medical Association places on record its deep sense of sorrow at the sad demise of the following members of the Association and conveyss its heartfelt sympathy to the members of the bereaved families :

In moving the above resolution, the President made a special reference to the sad demise of Dr. R. Sinha, the Honorary Secretary of the Journal of the I.M.A.

1. Dr. R. Sinha (Calcutta), Honorary Secretary, Journal of the I.M.A.; 2. Dr. Subhan Ali (Deoband); 3. Dr. M. L. Sehgal (Delhi); 4. Dr. G. B. Yamkanmardi (Poona); 5. Dr. K. G. Munsiff (Bombay); 6. Dr. K. B. Bhunjanga Rao (Bangalore); 7. Dr. V. S. Visvanathan (Bangalore); 8. Dr. H. R. Sabarwal (Meerut); 9. Dr. J. N. Das (Cuttack); 10. Dr. A. Srinivasan Naidu (Madras); 11. Dr. Amal K. Roychowdhury (Calcutta); 12. Dr. V. Kirloskar (Hyderabad); 13. Dr. N. Kar (Shillong); 14. Dr. B. K. Dasgupta (Calcutta) and 15. Shri Manoranjan Adhikari (Journal Office staff).

Messages of inability to attend the meeting :

Messages of inability to attend the meeting received from the following members were read :

1. Dr. S. K. Dutt (Calcutta), Hony. Joint Secretary, I.M.A.; 2. Dr. R. N. Chatterjee (Jabalpur); 3. Dr. G. V. Satyanarayana Murthy (Visakhapatnam); 4. Dr. P. R. Trivedi (Ahmedabad); 5. Dr. H. C. Mallik (Dhanbad); 6. Dr. M. M. S. Siddhu (Lucknow).

I. *Confirmation of the Proceedings of the 65th meeting of the Working Committee held at Cuttack on the 22nd and 23rd December, 1958.*

The following corrections were noted to the printed copy of the minutes as circulated.

Page 1, Column (i) under "Members Present"—read "Dr. R. C. Goulatia" instead of "Dr. R. V. Goulatia".

Page 4, Item IV, Column (i) 3rd paragraph—substitute "Dr. C. O. Karunakaran" instead of "The President".

The Minutes were confirmed, as proposed by Dr. H. N. Shivapuri (Lucknow) and seconded by Col. Amir Chand (New Delhi).

II. *Business arising out of the proceedings of the last meeting of the Working Committee.*

(1) *D.T.M. Course at the School of Tropical Medicine, Calcutta* :

The Sub-Committee comprising of Dr. B. P. Tribedi and Dr. P. K. Guha informed the Working Committee of the results of talks with the Director of the School of Tropical Medicine, Calcutta, wherein the Director had agreed to recommend to the Governing Body the reservation of about 25 seats for Licentiates in the same Course as for the D.T.M. Diploma for graduates, at the end of which the faculty of School of Tropical Medicine would hold a separate examination for the candidates and confer either L.T.M. & H. or Ct. M. & H. Diploma to the successful Licentiates. The Sub-Committee was requested to finalise the matter with the School, keeping in view that the Association preferred a L.T.M. & H. Diploma.

(2) *The Indian Medical Council Act as amended in 1956 and 1958* :

The office apprised the Working Committee that four replies had been received to its letter sent to those members of the Medical Council of India who also happened to be members of the I.M.A. The suggestion from Dr. Jivraj M. Mehta that the I.M.A. should nominate its

own candidates for election to the Medical Council of India, was considered. A sub-committee consisting of the following was constituted :

1. Dr. C. O. Karunakaran (President); 2. Dr. Chamanlal M. Mehta (Bombay); 3. Col. Amir Chand (New Delhi); 4. Dr. H. N. Shivapuri (Lucknow); 5. Dr. Ved Prakash, Hony. Joint Secretary (New Delhi)—Convener.

This Sub-Committee was requested to study the act as a whole to obtain views of the State/Territorial Branches and submit its report to the Working Committee at its next meeting. The following two resolutions proposed by Dr. H. N. Shivapuri and seconded by Dr. P. C. Bhatla were referred to the above Sub-Committee.

(i) "This Working Committee suggests that elected office bearers of the Medical Council of India should not hold normally their offices for more than one term and in special cases not more than two terms."

(ii) "This Working Committee further recommends to the Government of India that members of the teaching staff of medical faculties should not be allowed to stand for election from registered-graduate constituencies and rules for election be amended accordingly."

(3) *I.M.A. Benevolent Fund Scheme* :

Because the Superintendent of Insurance, Government of India had not yet given his approval to the I.M.A. Scheme, the matter was postponed.

(4) *Disposal of funds of the (dissolved) S. I. Branch of the B.M.A.* :

Dr. A. P. Mittra, Honorary General Secretary, explained the position with regard to the decision of the B.M.A. to transfer the funds first to London and then to hand over the money to the I.M.A. Dr. C. K. Prasad Rao, the Secretary of the Defunct Branch of B.M.A., who was present at the meeting was thanked by the Working Committee for his efforts in finalising the matter.

Dr. P. C. Bhatla informed the Working Committee that the funds of the erstwhile Lahore Branch of the I.M.A. had been transferred to India on the partition of the country and the Punjab National Bank, New Delhi was considering possibility of transferring the assets, amounting to about Rs. 10,000/- to the I.M.A. Central Office and the Central Office might have to execute a bond of indemnity of a like amount which the Working Committee authorised the Honorary General Secretary, I.M.A., to do, if such a necessity arose.

(5) *Employees' State Insurance Corporation* :

(a) *Letter No. 628/58-59 dated 27-2-59 and letter No. 629/58-59 dated 28-2-59 from the Honorary Secretary, Bengal State Branch, I.M.A.*

(b) *Letter from Dr. H. N. Shivapuri (Lucknow) dated 18-3-59.*

The report of the E.S.I. Standing Committee of the I.M.A. was presented to the house by Dr. Ved Prakash, Honorary Joint Secretary. Arising out of the discussion the following points were noted.

(i) that the Bombay Government had agreed to subsidise the per family capitation fee by a sum of Rs. 2/- over and above Rs. 15·50 nP. agreed to by the E.S.I. Corporation (for Greater Bombay) bringing the total to Rs. 17·50 nP. If and when the scheme was extended to the families of the workers in the State of West Bengal, a similar State Government subsidy of Rs. 2/- was to be negotiated for by the I.M.A., over and above the basic rate of Rs 15·50 nP. also sanctioned for greater Calcutta by the E.S.I. Corporation. The Government of Madras had agreed to pay Rs. 15/- per family unit which included Rs. 1·50 nP. as its subsidy though this break up had not been mentioned in its communication indicating that the E.S.I. Corporation was paying only Rs. 13·50 nP. for Madras. The Madras State Branch was asked to negotiate for enhancement of both the basic rate of Rs. 13·50 nP. and the subsidy of Rs. 1·50 nP.

(ii) The recently reconstituted Regional Board of the E.S.I. in West Bengal does not include a representative of the I.M.A. In the previous Board, the I.M.A. was represented by co-opting a member nominated by the Bengal State Branch, I.M.A., on the basis of the understanding arrived at between the I.M.A. and Mr. Subramanian, Director General, E.S.I. in the year 1954.

It was also decided that a copy of the correspondence with Mr. Subramanian on the subject be forwarded to all the State/Territorial Branches and Working Committee members and others concerned.

The report of the Standing Committee was adopted.

(5)b. The letter was discussed along with the report of the Standing Committee.

(6) *Life Insurance Corporation* :

Dr. C. S. Thakar was authorised to carry on negotiations with the Life Insurance Corporation on all issues as was already being done.

(7) *I.M.A. Building Fund* :

The report of the Standing Committee of the I.M.A. Building Fund was placed before the house. During discussion, the following information was given.

(i) The total amount of donation up to date was Rs. 1,72,505·61 nP.

(ii) The I.M.A. Reserve Fund was Rs. 1,14,322·82 nP. (which the Central Office was authorised by the Central Council at Jaipur in 1955 to utilise for the construction of the building).

(iii) The Working Committee agreed with the suggestion of Dr. C. O. Karunakaran, the President, that names of those donors to the Building Fund who donated Rs. 25/- and over would only be published in the Journal and the amounts less than Rs. 25/- would be published in the name of the respective branches, statewise.

(iv) The Central Office informed the Working Committee that the donations for the building which had not so far been acknowledged in the Journal would be acknowledged soon. It was further resolved that a comprehensive list showing the names of all donors who had paid not less than Rs. 25/- should be published on a branch-wise basis.

(7c) The Working Committee noted with appreciation the efforts made by Dr. S. C. Sen who during his tour after the Cuttack meeting made a collection of Rs. 27,405·45 nP. from the branches under the following states :—Andhra, Bombay, Bengal, Bihar, Madras, Mysore and Uttar Pradesh and a promise of Rs. 9,645·10 nP.

(7b) The Working Committee approved of the letter written to the Landlord of the Central Office building that the Association would vacate the premises when its own building was ready and certified for occupation. This was done on an understanding with the landlord that he would not appeal against the decision in the case of ejectment of the I.M.A. (Central Office).

The Honorary General Secretary informed the house that a deputation comprising of Dr. C. O. Karunakaran, Dr. S. C. Sen, Col. Amir Chand, Dr. A. P. Mittra and Dr. P. C. Dhanda waited upon the Minister of Health, Government of India, requesting a substantial grant for the Building of I.M.A. at New Delhi. The Minister gave a sympathetic hearing and promised to do his best in the matter and also advised the I.M.A. to approach the Ministers for Home Affairs and Finance and also the Prime Minister.

(8) *Resolution of Tilagarh Branch regarding award given by the Industrial Tribunal, West Bengal* :

The Central Office could not proceed further in the matter as the copy of the judgment in question as well as the recommendations of the State Branch had not been received.

(9) *Punjab Shops and Establishment Act and Delhi Shops and Establishment Act* :

(a) *Report of the Sub-Comuittee.*

(b) *Action taken by the Central Office to be reported (Central Office letter No. 2576/58-59 dated 3-2-59 to the Education and Health Minister of Punjab and reply thereto).*

The report of the Sub-Committee was presented to the House and the result of the interview with the Labour Minister, Punjab, was communicated. It was pointed out that the Punjab State Branch not being satisfied was proceeding with the writ petition filed in the Punjab High Court.

The Working Committee decided to keep the Sub-Committee alive and directed the Central Office to collect information from all the States with regard to similar acts and to give a general review of the situation in the country and explore the possibility of a combined action to get exemption for doctors all over the country.

(10) *Letter dated 27-11-58 of the Honorary Secretary, Uluberia Branch, West Bengal, containing a resolution for the formation of a Defence Council for the members of the I.M.A.* :

Dr. P. C. Bhatla, Honorary Joint Secretary, informed that the Sub-Committee had informal discussions and the report would be presented at the next meeting.

(11) *Resolution re. decision of the Delhi Administration about doctors' clinics and residential areas* :

Nothing to report.

(12) *Letter dated 6-12-58 from Dr. B. B. Bhatia to explore the possibilities of Assistantship, Partnership and Group Practice in India* :

The report of the Sub-Committee was adopted and the Working Committee directed the Sub-Committee to watch the projects which were proposed to be adopted in Delhi and other places. The Sub-Committee was requested to continue functioning and report, as and when necessary.

(13) *Appointment of a Delegate of the I.M.A. to the Fifth Commonwealth Medical Conference to be held in London in July, 1959* :

The Working Committee elected the following to represent the I.M.A.

Dr. Ved Prakash—Leader and official delegate (or in case he was not able to attend, Dr. P. C. Bhatla).

The following were elected as other delegates of the I.M.A. and would be travelling at their own expense.

1. Dr. B. K. Anand (New Delhi); 2. Dr. S. S. Misra (Lucknow); 3. Dr. Sangham Lal (New Delhi); 4. Dr. K. L. Wig (New Delhi).

(14) *The Second World Conference on Medical Education (under the auspices of the W.M.A.) to be held from August 30 to September 4, 1959 in Chicago* :

Dr. A. P. Mittra placed a list of the delegates of the I.M.A., as received in the office duly proposed and seconded, which he had already forwarded to the W.M.A. The Working Committee scrutinised the list and did not approve of the names of Dr. Jacob Chandy, Dr. (Mrs.) Sarala Ghosh and Dr. P. K. Ghosh. The Honorary General Secretary was asked to send the revised list as under :

1. Dr. S. C. Sen (New Delhi); 2. Dr. A. P. Mittra (New Delhi); 3. Dr. P. K. Guha (Calcutta); 4. Dr. R. V. Sathe (Bombay); 5. Dr. R. K. Menda (Bombay); 6. Dr. C. L. Jhaveri (Bombay); 7. Dr. K. C. Chaudhuri (Calcutta); 8. Dr. P. N. Wahi (Agra); 9. Dr. S. S. Misra (Lucknow); 10. Dr. S. M. Ghosal (Patna); 11. Dr. P. N. Sinha (Patna); 12. Lt. Col. Amir Chand (New Delhi).

The following resolution was unanimously approved by the house.

"Only those members of the I.M.A. who have had a continuous membership of three years or more should be nominated as delegates of the I.M.A. to any outside body."

(15) (a) *Appointment of Delegates, Alternate Delegates and Observers of the I.M.A. to the XIII General Assembly of the W.M.A. to be held in Montreal, Canada from September 7 to 12, 1959.*

(b) *New Scheme for the budgeted amount and member Association dues of the W.M.A. to be effective from 1960.*

(a) The Working Committee elected the following to represent the I.M.A. at the W.M.A. XIII General Assembly.

First Delegate and Leader (T.A. paid by I.M.A.)	Dr. A. P. Mittra— (or. Col. Amir Chand (New Delhi), if Dr. Mittra was unable to go
Second Delegate (at own expense)	Dr. R. V. Sathe (Bombay)
Alternate Delegates (at own expense)	1. Dr. K. V. Swamy (Madras) 2. ,, S. S. Misra (Lucknow)
Observers (at own expense)	1. Dr. (Mrs.) Kashibai R. Sathe (Bombay) 2. ,, R. K. Menda (Bombay) 3. ,, C. L. Jhaveri (Bombay) 4. ,, D. G. Ojha (Jodhpur) 5. ,, E. Lloyd Cunningham (Bulsar) 6. ,, D. N. Shivapuri (Delhi) 7. ,, Y. D. Kapur (Faizabad) 8. ,, D. S. Khandelwal (Delhi)

Dr. A. P. Mittra would be paid travelling and incidental expenses up to Rs. 5,000/- as provided for in the budget.

The Working Committee desired that the official delegate should submit his report and the same be printed in the Journal of I.M.A.

(b) The Working Committee was apprised of the new proposal for distribution of the total expenses of the W.M.A. between member associations with effect from 1960; the Working Committee approved to pay up to 2 per cent of the total expenses as the share of the I.M.A., i.e. equivalent to the amount already being paid by the I.M.A.

(16) *Election of office bearers* :

The Working Committee took into consideration the report of the Sub-Committee as presented by Dr. V. P. Vasudevan. It was made clear by the President during the discussion that the report concerned the election of the President and three Vice-Presidents of I.M.A. only and not other office bearers.

After a very exhaustive discussion the following amendments were moved and decided as under :

(i) Proposed by Dr. H. N. Shivapuri and seconded by Dr. S. P. Nath.

"that the procedure of election followed a few years earlier viz. one vote for each local branch be adopted"—lost by a majority of 27 against and 5 in favour.

(ii) Proposed by Dr. Arvind M. Shah (Bombay) and seconded by Dr. Souren Sengupta.

"that the Ex-Officio members of the Central Council should not be allowed to exercise their votes during the election to be conducted as per recommendations of the Sub-Committee"—lost by 5 in favour and 31 against.

(iii) Proposed by Dr. Arvind M. Shah and seconded by Souren Sengupta.

"that in para 5 of the report substitute August for September"—unanimously accepted.

(iv) Proposed by Dr. N. P. Tripathi and seconded by Dr. T. A. Dorai Royan.

"that on page 8 (i) add "Election of Central returning officer—who shall conduct election of Central Office-bearers and elections will be held one year in advance."

—As this amendment involved election not only of the President and three Vice-Presidents but also of other office-bearers—it was ruled out of order by the President.

(v) Proposed by Dr. P. K. Guha and seconded by Dr. R. N. Sahu.

"that the Working Committee of the Association shall at a meeting held between March and May every year elect a Central Returning Officer for the election of all office-bearers of the Association. The election shall be finalised and results of the election shall be announced at the Annual Meeting of the Working Committee and the Central Council. The President, Vice-Presidents and all other office-bearers thus elected assume their offices on the first day of the next annual conference of the Association."

—Ruled out of order by the President as it involved election rules and bye-laws also of office bearers other than the President and the three Vice-Presidents.

(vi) Proposed by Dr. Souren Sengupta and seconded by T. V. Sivanandam.

"The Working Committee having discussed the Sub-Committee report and the suggestions proposed thereof, recommends circulation of the report along with the suggestions and amendments to branches for eliciting opinion before the report can be adopted finally."

—Lost by 10 in favour and 16 against.

(vii) Proposed by Dr. Ved Prakash and seconded by Dr. P. C. Bhatla.

"That the Working Committee thanks the members of the Sub-Committee for their report and recommendations regarding the election of the President and the three Vice-Presidents of the Association and it resolves to adopt the report as amended and the Central Office is directed to prepare a memorandum based on this report for opinion of the State/Territorial branches before submitting it to the Central Council."

—Accepted by a majority of 20 votes in favour and 8 against. (Abstained from voting Dr. C. Nathamuni Naidu).

Drs. B. P. Tribedi, Souren Sengupa, P. K. Guha, H. N. Shivapuri, S. P. Nath, Ajit Roy, Gourhari Dutt and T. V. Sivanandam got their vote of dissent recorded.)

(viii) The proposal of Dr. C. O. Karunakaran, the President i.e.

"the State Councils will give a brief history of the candidates for election to President and Vice-Presidents of the I.M.A."—was accepted unanimously.

III (a). *Formation of Local Branches* :

	Name of Local Branch	State/Terri. Branch	No. of members	Date of formation
1.	Murshidabad ...	Bengal	12	1-10-1958
2.	Baran ...	Rajasthan	8	—do—
3.	Vengula (S. Ratnagiri) ...	Maharashtra	11	—do—
4.	Chatra ...	Bihar	9	—do—
5.	Bongaigaon ...	Assam	8	—do—
6.	Dhonsiri Bokakhat ...	—do—	6	—do—
7.	Jind ...	Punjab	6	1- 4-1959
8.	Kalka ...	—do—	8	—do—
9.	Balaghat ...	Madhya Pradesh	9	—do—

III (b). *Revival of Branches* :

1.	Sikar ...	Rajasthan	16	Revived with effect from 1st October '58

III (c). *Branches suspended* :

Nil.

III (d). *Branches declared defunct* :

Nil.

IV (a). *Consideration of C.F.C. Arrears* :

Item No. 9 was also taken for consideration with this item. The Working Committee noted with concern the arrears of C.F.C. of the current year as placed before the house by Dr. R. C. Goulatia, Honorary Treasurer.

IV (b). *Central Office circular No. 11/58-59 dated 12-1-59 re. C.F.C. for the past years* :

The Sub-Committee appointed at Cuttack had issued a questionnaire and since all the State/Territorial branches had not replied, the final report could not be presented. However, a preliminary report of the action being taken was made which the house approved.

IV. (c). *Letter No. 376/53/58-59 dated 22-1-59 from Dr. M. M. S. Siddhu, Honorary Secretary, U.P. State Branch re. addition to Bye-law No. 7 (payment of C.F.C.)* :

The Working Committee discussed the letter in question and in view of the fact that opinion on it were divided, the convention hitherto followed was decided to be continued till further decision viz. although the membership is on an annual basis and continuous and the C.F.C. became due on the first day of the financial year, in advance and the privilege or concession of being allowed of paying it in two equal half-yearly instalments, within due dates, was to be continued and if any branch notified the termination of membership of any of its members within the first half of the year then the branch need not pay C.F.C. for the second half of the year for that member. Similarly, if the branch did not include name of any of its old members in the grace period of one month for sending of the membership list then the branch was not liable to pay for that half of the year.

The House decided to appoint a Finance Standing Committee of the I.M.A. to look after the finances of the Association.

V. *Adoption of Audited Accounts* :

(a) *Central Office*—The Audited Accounts of the Central Office were adopted—proposed by Dr. C. Nathamuni Naidu and seconded by Dr. B. P. Tribedi.

(b) *Journal Office*—The Audited Accounts of the Journal Office were adopted—proposed by Dr. B. B. Bhatia and seconded by Dr. K. Rangacharyulu.

VI. *Letter dated 14-12-58 from Dr. K. V. Swamy, Madras, regarding recognition of Medical Profession as one of the essential services* :

The letter in question was discussed and it was felt that the letter was very vague. However, on the information of Dr. Y. P. Vasudevan that this letter referred to the matter of getting the medical practitioners declared as essential services in his state for the purposes of Rent Control Act and eviction of doctors thereunder, the Working Committee directed the Central Office to collect information on Rent Control Act from all States and after that Dr. Y. P. Vasudevan and Dr. K. V. Swamy were to draw up a memorandum on the subject.

Regarding the second suggestion the Working Committee felt that the matter should be taken up at State level since Excise was a transferred subject.

VII. *Payment of T.A. Bill to Dr. R. R. Barua for attending the annual meeting of the Central Council held at Trivandrum in December 1958* :

The Working Committee did not allow the T.A. to be paid to Dr. R. R. Barua as it could not recognise a member of one branch representing another branch on the Central Council when both branches are independently and numerically capable of sending representatives to the Central Council as per rules.

VIII. *Resolution passed by the State Council of the Madhya Pradesh State Branch re. dispute between the Indore Branch and the erstwhile Madhya Bharat State Branch pertaining to funds* :

Postponed as per request of the State Secretary.

IX. *Letter No. 403/53/58-59 dated 5/7th February from the Hony. Secretary, U.P. State Branch re. interpretation of Bye-law No. 7, 2nd para* :

Already discussed under item 4(a) C.F.C. arrears.

X. (a) *Application from the Central Office staff for revision of rates of allowance etc.* :

Not approved.

(b) *Application from Shri Prem Nath, Despatcher, Central Office, for further increment in his salary* :

The Working Committee sanctioned Shri Prem Nath, Despatcher-Clerk, the pay scale in the next grade with effect from 1-4-1958 (afternoon) and his pay to be fixed at next higher stage in the new grade with the one increment which had become due on 1-4-1958.

XI. *Letter No. 86/59 dated 23-2-59 from the Honorary Secretary, Dhakuria Branch re. publication of branch notes of the I.M.A.*

The subject matter of the letter i.e. responsibility of the publication of branch notes in the Journal of the I.M.A. was left to be decided between the Journal Office and the Central Office. The Working Committee did not approve of the language of the letter in question. The State Secretary was requested to advise the Branch Secretary to that effect.

XII. *Resolutions proposed by Dr. B. P. Tribedi, Calcutta, re. payment of T.A. to co-opted members of the Working Committee and to representatives of Local Branches at the annual meeting of the Central Council* :

(a) Withdrawn by the mover.

(b) To ensure attendance of the members of the Central Council at its meeting which was the object of the resolution under discussion, the Central Office was asked to draw up a memorandum keeping in view the spirit of the resolution and incorporate any other suggestion which it thought fit to achieve the object. The memorandum was to be circulated to the branches for opinion.

XIII. *Letter dated 18-11-58 from the Secretary, British Medical Association, re. visit to India of Dr. Wand, the Chairman, 4th Council of the B.M.A., at the invitation of the I.M.A.* :

The Working Committee was glad that the Chairman of the Council of the B.M.A. had offered to visit India sometime early in 1960. The Honorary General Secretary was directed to finalise his programme in India.

XIV. *Letter dated 19-11-58 from the Honorary Secretary, Sambalpur Branch, I.M.A. re. establishment of a second Medical College in the State of Orissa* :

The Working Committee reiterated its resolution on this subject passed at the Patna meeting of the Working Committee in 1957.

Patna Resolution 1957 :

"The Working Committee of the Indian Medical Association notes with surprise, contrary to its recommendations made in its comments on the Second Five Year Plan, the non-inclusion of Orissa, Assam and other States in the list of States where new medical colleges were to be established under the Second Five Year Plan.

The Working Committee, therefore, wishes to impress upon the Health Ministry, Government of India, once again, that the States of Orissa and Assam, being the States with the lowest doctor-population ratio in India, should be given priority and provided with the two new medical colleges during the Second Five Year Plan period.

XV. *Letter No. 75/57 dated 24-11-58 from the Honorary Secretary, Dhakuria Branch regarding "experiences on Cuttack Conference"* :

The letter under issue was referred to the Sub-Committee which was drawing up the brochure on Conduct of Annual Conferences.

XVI. *President's tour of Assam* :

Noted.

XVII. *Resolutions of the Central Council of Health passed at Shillong in January '59* :

The Working Committee appointed the following to constitute a sub-committee to study all the resolutions passed by the Central Council of Health :

1. Dr. C. O. Karunakaran (Trivandrum); 2. Col. Amir Chand (New Delhi); 3. Dr. B. P. Tribedi (Calcutta); 4. Dr. H. N. Shivapuri (Lucknow); 5. Dr. A. P. Mittra, Hony. General Secretary (New Delhi)—Convener.

The Sub-Committee was to consider the resolutions and submit its report to the Working Committee at its next meeting. The resolutions were to be circulated to the State/Territorial Branches for opinion.

The copy of the following resolution passed at the Bengal State Conference and handed over by Dr. Gourhari Dutt (Midnapur), was also referred to the Sub-Committee for its consideration.

"This Conference urges upon the Central Working Committee to allow the Bengal Provincial Council to move the State Government for abolition through legislature the practice of modern scientific system of medicine within the State by unqualified men and a preliminary step be enforced first in municipal town where there are sufficient number of qualified medical men to render service to the suffering population.

The Indian Medical Association and the Central Council of the I.M.A. and various provincial councils of I.M.A. have already passed resolution to the effect that steps be taken to abolish quackery. But nothing tangible has yet been evolved on the ground that there are dearths of qualified medical men in several places to meet the demands of suffering public. In Bengal there are sufficient number of qualified medical men in Municipal towns and the majority of them are economically hard-hit.

Although the general economic condition of the country is responsible for this to some extent, the major menace is the practice of Allopathic system of medicine by unqualified medical men which is becoming rampant everywhere."

The Working Committee sanctioned T.A. for one meeting of the Sub-Committee.

XVIII. *Letter dated 6-3-59 from Dr. H. N. Shivapuri, Lucknow, re. practice by unqualified persons* :

The Working Committee referred the letter to the Sub-Committee formed to consider the Central Council of Health resolution.

XIX. *Letter dated 14-10-58 from Research Committee of Council of the College of General Practitioners, Highams Park, E. 4, U.K.* :

The Central Office was asked to collect information and to send the letter to State/Territorial Branches for opinion.

XX. *Designation of office bearers of the Central Office, State, Territorial and Local Branches of the I.M.A.*:

The Working Committee approved the following appropriate designation for its office-bearers, both at the Central Office, State/Territorial Office and Local Branch.

1. Honorary General Secretary, I.M.A. at the Central Office.
2. Honorary State (or Territorial) Secretary at State/Territorial Branch level.
3. Honorary Secretary at Local Branch level.

The Working Committee also directed that all State/Territorial Branches should use their proper designation on printed stationery, seals and rubber stamps etc. The word "Provincial Branch" or "Provincial Council" should no longer be used; rubber stamps or seals such as "I.M.A. —XYZ" should no longer be used; the correct wording should be "I.M.A.—XYZ State Branch". All local branches should use the following designation on their stationery etc.,—"Indian Medical Association—XYZ Branch". A few of the old established branches which have been allowed to retain their old names must also mention on their stationery the words—"branch of the I.M.A."

XXI. *I.M.A. Research Fellowship—Selection of candidates* :

Referred to the Planning and Medical Education Standing Committee of the I.M.A.

XXII. *Letter No. 145/52 dated 26-2-59 from the President to the Honorary General Secretary, I.M.A. (Central Office), Delhi* :

This letter dealt with organisation of staff at the Central Office. The Working Committee authorised the Honorary General Secretary, keeping the discussion in view, to deal with the matter in consultation with the President. The Working Committee authorised the necessary additional expenditure.

It was also decided that the Central Office would frame service rules for the staff members and bring the same to the Working Committee for approval.

XXIII. *Letter dated 10-3-59 from Dr. N. P. Tripathi, Patna, regarding use of emblem of the I.M.A.* :

Postponed—Note to be prepared by the Central Office.

XXIV. (a) *Circular Letter No. F. 10/2/59-ISM dated 18-2-59 from the Under Secretary to the Government of India, Ministry of Health, New Delhi, re. Proposal of setting up of an All-India Academy of Medical Sciences.*

(b) *Letter dated 11-3-59 from Dr. Sangham Lal, Professor of Surgery, All-India Institute of Medical Sciences, New Delhi, enclosing a memorandum.*

These letters concerned the setting up of an All-India Academy of Medical Sciences. During the discussion the following resolution was proposed by Dr. Y. P. Vasudevan and seconded by Dr. R. C. Goulatia.

"The Working Committee is of the opinion that at the present juncture there is no need to multiply post-graduate qualifications as the existing post-graduate qualifications given by the Universities are quite adequate".

The House rejected the resolution. However the proposal of Dr. Souren Sengupta seconded by Dr. T. A. Dorai Royan, was passed by a majority of 9 against 5 that

"the matter be referred to the Medical Education Committee of the I.M.A., as well as to the State/Territorial Branches of the I.M.A. for opinion."

XXV. *Letter No. 330/58-59 dated 10-3-59 from the Honorary Secretary, Madras State Branch, I.M.A., regarding publication of Journals by local or State/Territorial Branches of the I.M.A.* :

The Working Committee reconsidered the question of publication of medical journals, bulletins etc. by the branches of the I.M.A. After a detailed discussion on the subject the following resolution proposed by Dr. H. N. Shivapuri and seconded by Dr. Chamanlal M. Mehta was unanimously passed :

"Resolved that the State/Territorial Branches of the I.M.A. be allowed to publish Journals or Bulletins on the following conditions :

(i) that they write nothing inconsistent with the policy and decision of the I.M.A.
(ii) that the journal or bulletin deals with State matters only.
(iii) that no editorials should be written and
(iv) that a copy of each issue is supplied free of charge to the Central Office of the I.M.A. and the Journal Office."

During the discussion the attention of the Working Committee was drawn to the editorial on "Ayurveda" in the "Medical Bulletin" of September 1958 published by the Gujarat & Saurashtra and Kutch Branch of the I.M.A. The Working Committee viewed with concern such opinion with which it did not associate and asked the Central Office to draw the attention of the Territorial Branch concerned to that effect.

XXVI. *Letter dated 17-3-59 from Dr. J. B. Chatterjea who had regretted his inability to act as Assistant Editor of the Journal of the I.M.A.*

The Working Committee accepted with regret the resignation of Dr. J. B. Chatterjea as Assistant Editor of the Journal, I.M.A., and on the proposal of Dr. P. K. Guha, Editor, Journal I.M.A., and seconded by Dr. B. P. Tribedi, the Committee unanimously elected Dr. Sukomal Sen as the Assistant Editor of the Journal, I.M.A. for the remaining term of the year; and in the vacancy of Hony. Secretary, Journal, I.M.A. caused as a result of the sad demise of Dr. Ranajit Sinha, Hony. Secretary of the J.I.M.A., Dr. N. C. Banerjee (Calcutta) as the Hony. Secretary of the J.I.M.A., for the remaining period of the year.

XXVII. *Letter dated 20th March 1959 from Col. Amir Chand, New Delhi, re. co-ordination between the I.M.A. and the various specialist organisation* :

The letter was discussed and the Working Committee desired that the President and the other active members of the State/Territorial branches, as well as the members of the Working Committee should approach the specialist organisations with their good offices, strive for the desired effect of close co-ordination between the I.M.A. and the various specialist organisations. The President stated that he had already approached some of the specialist organisations to this effect.

XXVIII. *To decide if it will be advisable, if possible, to organise a Study Tour abroad for members of the I.M.A. in 1959* :

The Working Committee approved of the proposed study tour by a majority of 12 against 4 votes. It was decided that the tour would be sponsored and arranged by the I.M.A. and that the Association would arrange the itinerary of the tour. The President was requested

to select the official leader of the batch out of the participants. The Honorary General Secretary was asked to draw up the necessary plans.

Supplementary Agenda (as duly circulated) :

1. *Copy of letter No. F. 25-2/59 M.I. dated 26-3-59 from the Government of India, Ministry of Health, New Delhi, containing observations on the Resolutions passed at the 35th All-India Medical Conference held at Cuttack in December 1958.*
   Noted.
2. *A brief note from Dr. C. O. Karunakaran, President, I.M.A., re. Activities of the President and Vice-Presidents of the I.M.A.*
   Noted.
3. *Formation of Standing Committees* :

It was decided that the Standing Committees should be continuous bodies and that a third of the members should retire annually by rotation, who would be eligible for re-election.

The Working Committee appointed the following Standing Committees and other Committees.

i. *National Plans Standing Committee of the I.M.A.*

1. Col. Amir Chand (New Delhi)—Reporter; 2. Dr. A. P. Mittra (New Delhi); 3. Dr. S. C. Sen (New Delhi); 4. Dr. H. N. Shivapuri (Lucknow); 5. Dr. A. K. Sen (Patna); 6. Dr. A. K. Bose (Calcutta); 7. Dr. Ved Prakash, Hony. Joint Secretary (New Delhi)—Convener.

ii. *Medical Education Standing Committee of the I.M.A.*

1. Dr. P. K. Guha (Calcutta)—Reporter; 2. Col. Amir Chand (New Delhi); 3. Dr. C. O. Karunakaran (Trivandrum); 4. Dr. B. P. Tribedi (Calcutta); 5. Dr. C. N. Chandrachud (Poona); 6. Dr. R. V. Sathe (Bombay); 7. Dr. A. P. Mittra, Hony. General Secretary (New Delhi)—Convener.

iii. *Insurance Standing Committee of the I.M.A.*

1. Dr. C. S. Thakar (Bombay)—Reporter; 2. Dr. H N. Shivapuri (Lucknow); 3. Dr. Moitrayee Bose (Calcutta); 4. Dr. P. N. Sinha (Patna); 5. Dr. S. C. Sen (New Delhi); 6. Dr. Arvind M. Shah (Bombay); 7. Dr. Souren Sengupta (Calcutta); 8. Dr. Ved Prakash, Hony. Joint Secretary (New Delhi)—Convener with powers to co-opt on special occasions.

iv. *I.M.A. Building Standing Committee.*

1. Dr. C. S. Thakar (Bombay); 2. Dr. S. C. Sen (New Delhi); 3. Dr. R. C. Goulatia (New Delhi); 4. Dr. A. P. Mittra (New Delhi); 5. President, Delhi Medical Association; 6. Secretary, Delhi Medical Association; 7. Dr. P. C. Bhatla, Hony. Joint Secretary (New Delhi) —Convener.

v. *Family Planning Committee of the I.M.A.*

1. Dr. H. N. Shivapuri (Lucknow)—Reporter; 2. Dr. C. O. Karunakaran (Trivandrum); 3. Dr. S. C. Sen (New Delhi); 4. Dr. Souren Sengupta (Calcutta); 5. Dr. A. P. Mittra, Hony. General Secretary (New Delhi)—Convener.

vi. *Finance Standing Committee of the I.M.A.*

1. Dr. V. P. Vasudevan (Coimbatore)—Reporter; 2. Dr. H. N. Shivapuri (Lucknow); 3. Dr. K. Rangacharyulu (Hyderabad); 4. Dr. B. K. Modak (Kalyan); 5. Dr. Souren Sengupta (Calcutta); 6. Dr. R. C. Goulatia (New Delhi); 7. Dr. P. C. Bhatla, Hony. Joint Secretary (New Delhi)—Convener.

vii. *Shops & Establishment Acts Committee of the I.M.A.*

1. Dr. Ved Prakash, Hony. Joint Secretary (New Delhi)—Reporter; 2. Dr. P. C. Dhanda (Delhi); 3. Dr. Y. P. Vasudevan (Coimbatore); 4. Dr. R. C. Goulatia (New Delhi); 5. Dr. M. A. Panwala (Ghatkopar); 6. Col. Amir Chand (New Delhi); 7. Dr. P. C. Bhatla, Hony. Joint Secretary (New Delhi)—Convener.

The Working Committee sanctioned T.A. for members of all the above Standing Committees.

The Working Committee desired that the State/Territorial Branches should also appoint similar committees in their States or Territories and send periodical reports of their activities in their States or Territories to the Central Office and furnish the Standing Committees of the I.M.A. with up-to-date information.

4. *Letter dated 26-3-59 from Dr. B. K. Modak (Kalyan) containing a resolution regarding indirect representation of State/Territorial Branches of the I.M.A. on the Central Council.*

The Working Committee decided to refer the letter in question to the Sub-Committee appointed to go into the election rules of I.M.A. for the President and three Vice-Presidents. Also the Central Office was asked to circulate the letter to the local branches and State/Territorial branches for opinion.

5. *Post Card dated 13-3-59 from Dr. H. N. Shivapuri, Lucknow, re. representation of the I.M.A. on—*
   (a) *Committee to be appointed by the Government of India to survey Health Measures or Schemes taken up during the First and Second Five Year Plans.*
   (b) *Study Circles being appointed by the Planning Commission on various subjects including one on health matters, to study schemes for the Third Five Year Plan.*

The Working Committee considered both the letters and unanimously passed the following resolution proposed by Dr. H. N. Shivapuri and seconded by Dr. R. C. Goulatia.

(1) "The Working Committee of the I.M.A. has learnt with pleasure that the Government of India is appointing a Committee to survey the Health Schemes and measures taken up during the first and second Five Year Plans. The Working Committee further requests that the Indian Medical Association should be adequately represented on the Committee."

(2) "This Working Committee of the I.M.A. has learnt that the Planning Commission is appointing a study circle on Health matters to study health problems for the Third Plan. This Committee requests that the I.M.A. be adequately represented on the Study Circle."

XXIX. *Any other business with the permission of the President* :

(1) The following resolutions were allowed by the President to be moved and were passed unanimously.

"Whereas the Union Minister of Health is reported to have made a statement in Lok Sabha to the effect that a proposal that every Medical Graduate should spend at least two years in the rural areas after graduation was under consideration of the Medical Council of India,

Whereas the health and life of the rural population is as important and sacred as of the urban population,

Whereas the first three or four years after graduation are to be devoted to gaining practical clinical experience and self-confidence under expert supervision and guidance without which a fresh graduate is not capable of shouldering the responsibility of undertaking proper care of the patients he may be called upon to deal with on his own, more so in an area where accessory diagnostic aids are non-existent and where second opinion is rarely available,

Whereas the rural population, situated as it is in India, mostly isolated from even modestly equipped and

staffed centres of medical relief, needs the services of doctors who would be competent enough to deal with cases of routine illness and accidents with proper professional skill and self-confidence and to know when to call and arrange for help of a specialist or a consultant, be it resolved that it be urged on the Central and State Governments that in the interest of the public and of the fresh medical graduates, only such doctors who have received proper practical training under expert guidance and supervision for at least three years after graduation, and preferably doctors of even longer standing and experience, should be employed in rural areas for looking after the health of the rural population and not raw graduates."

Proposed by Col. Amir Chand
Seconded by Dr. P. C. Bhatla

(2) *Resolution No. 2*:

Whereas the period of training for a basic medical qualification has been raised from 5 to 5½ years, including pre-registration period or internship, and whereas a part of this period is to be spent in a rural health centre and in some cases in a non-teaching hospital where facilities for board and lodging are not so easily and economically available as in a teaching hospital, be it resolved that medical students undergoing pre-registration training or internship after passing the Final Examination be granted a suitable subsistence allowance for the period of internship by the authorities of all the medical colleges concerned.

Proposed by Col. Amir Chand
Seconded by Dr. Ved Prakash

(3) *A letter from the Bombay Territorial Branch, I.M.A. (copy handed over by Dr. Chamanlal M. Mehta) re. other systems of medicine being studied in other countries,* was read out.

The Working Committee asked the Central Office to take action on the subject and collect all relevant information.

Vote of Thanks:

The following resolution was proposed from the Chair and passed unanimously.

"This meeting of the Working Committee of the I.M.A. places on record its deep appreciation and thanks for the hospitality and courtesy accorded to its members on the occasion of the meeting held on the 11th and 12th April, 1959, by the President, Secretary and members of Visakhapatnam Branch under its auspices."

With a vote of thanks to the Chair, the meeting came to an end.

Sd./- C. O. KARUNAKARAN
President
Indian Medical Association.

Sd./- A. P. MITTRA
Honorary General Secretary
Indian Medical Association.

BRANCH NOTES

ALLAHABAD BRANCH—A scientific meeting of the branch was held on 16-2-59. A symposium on "Headaches" was held. Dr. S. K. Mukherji spoke on Causes and Investigation; Dr. J. C. Bass on Ocular Headaches; Dr. P. K. Tamaskar on Post-Operative and Anaesthetic Headache and Dr. A. Mukherjee on Headache in Childhood.

A clinical meeting was held on 14-3-59 at the Northern Railway Hospital. Dr. J. R. Gadeock opened a discussion on Osteomyelitis and demonstrated a few cases.

The members of the branch met on 14-3-59 and condoled the death of Dr. N. N. Datta. The annual Holi festival was held on 29-3-59. Interesting films were shown. The members were entertained to music and dance.

BERHAMPORE BRANCH—A general meeting of the branch was held on 29-3-59 with Dr. R. N. Roy in the chair. Office-bearers for 1959-60 were elected with Dr. R. N. Roy as president, Dr. J. N. Addya as vice-president, Dr. B. N. Sinha Chaudhuri as secretary, Dr. M. Banerjee as joint secretary and Dr. T. K. Tarafdar as treasurer.

BHADRAK BRANCH—The annual general meeting of the branch was held on 28-2-59. Capt. Dr. A. P. Sinha presided. Ten members were present. Office-bearers for 1958-59 were elected with Dr. A. P. Sinha as president, Dr. N. Dutta as vice-president and Dr. B. Chanda as secretary and treasurer. The report and the accounts of the last year were adopted. The attention of the State branch IMA and the State authorities was drawn

BOMBAY BRANCH—The annual general meeting of the branch was held on 29-3-59. Office-bearers for 1958-59 were elected with Dr. C. L. Jhaveri as president, Dr. R. K. Menda and Dr. K. U. Jhatakia as vice-presidents, Dr. A. D. Daftry and Dr. V. K. Toraskar as hony. joint secretaries and Dr. R. K. Shah as hony. treasurer. The annual report of the branch for 1957-58 shows that the strength of membership stood at 678 on 30-9-58. The Managing Committee met 6 times during the year. The sub-committees appointed during the year met from time to time and submitted their reports to the Managing Committee. The monthly programmes of the branch were a most successful feature. Clinical discussions, lectures, symposia and demonstrations were regularly carried on.

NORTH HOWRAH BRANCH—The Bejaya Sammelanee was held on 2-11-58, when 31 members attended and exchanged greetings. A general meeting was held on 9-11-58 with Dr. G. Mazhi in the chair. Office-bearers were selected with Dr. J. Mukherjee as president, Dr. S. Mukherjee, Dr. J. N. Bose and Dr. U. N. Bhattacharjee as vice-presidents, Dr. Santimoy Mukherjee as hony. secretary, Dr. G. C. Rakshit and Dr. B. De Sarker as hony. asst. secretaries.

Two meetings of the executive committee were held one on 9-11-58, another on 25-1-59. Second general meeting was held on 8-2-59. Thirty members were present. Four new members were enlisted in this year.

PROCEDURE REGARDING SENDING OF BRANCH NOTES

The branches were previously asked to send the notes directly to the Journal Office with a copy forwarded to the State Branch. A better procedure would however be that the branches submit their notes and news etc. to their respective State/Territrial Branches in triplicate. One copy each would be forwarded by the State/Territorial Branch to the Central Office and the Journal Office and the third copy would be retained by the State Branch.

It is requested that this procedure be followed hereafter, for smooth and efficient collaboration between the various offices concerned.

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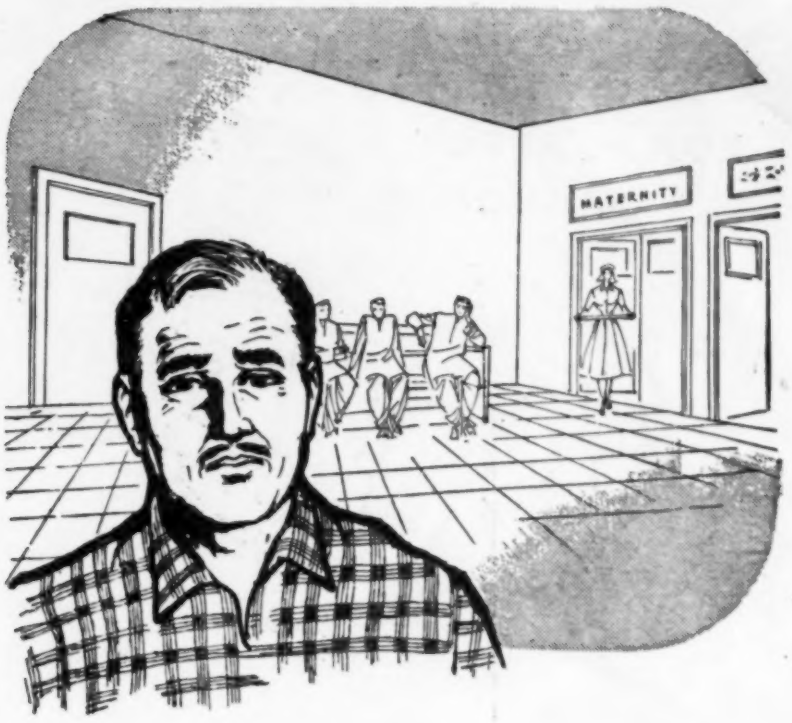
Hony. Editor, Journal of I.M.A., Calcutta.

A. P. MITTRA,
Hony. General Secretary, I.M.A., Delhi.



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1. *Braceland, F.J.: Texas State J. Med, 51 : 287, (June) 1955.*
2. *Lemere, F.: Northwest Med, 54 : 1098, (Oct.) 1955.*

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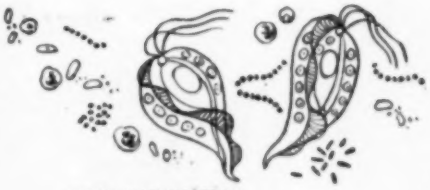

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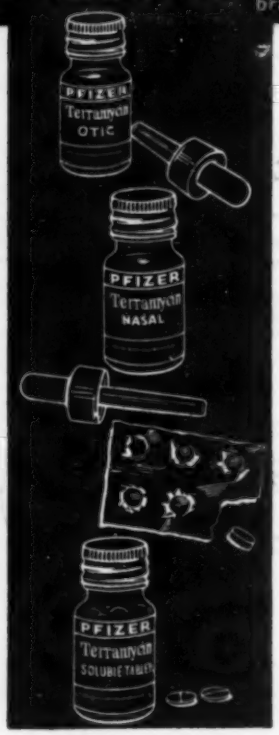

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